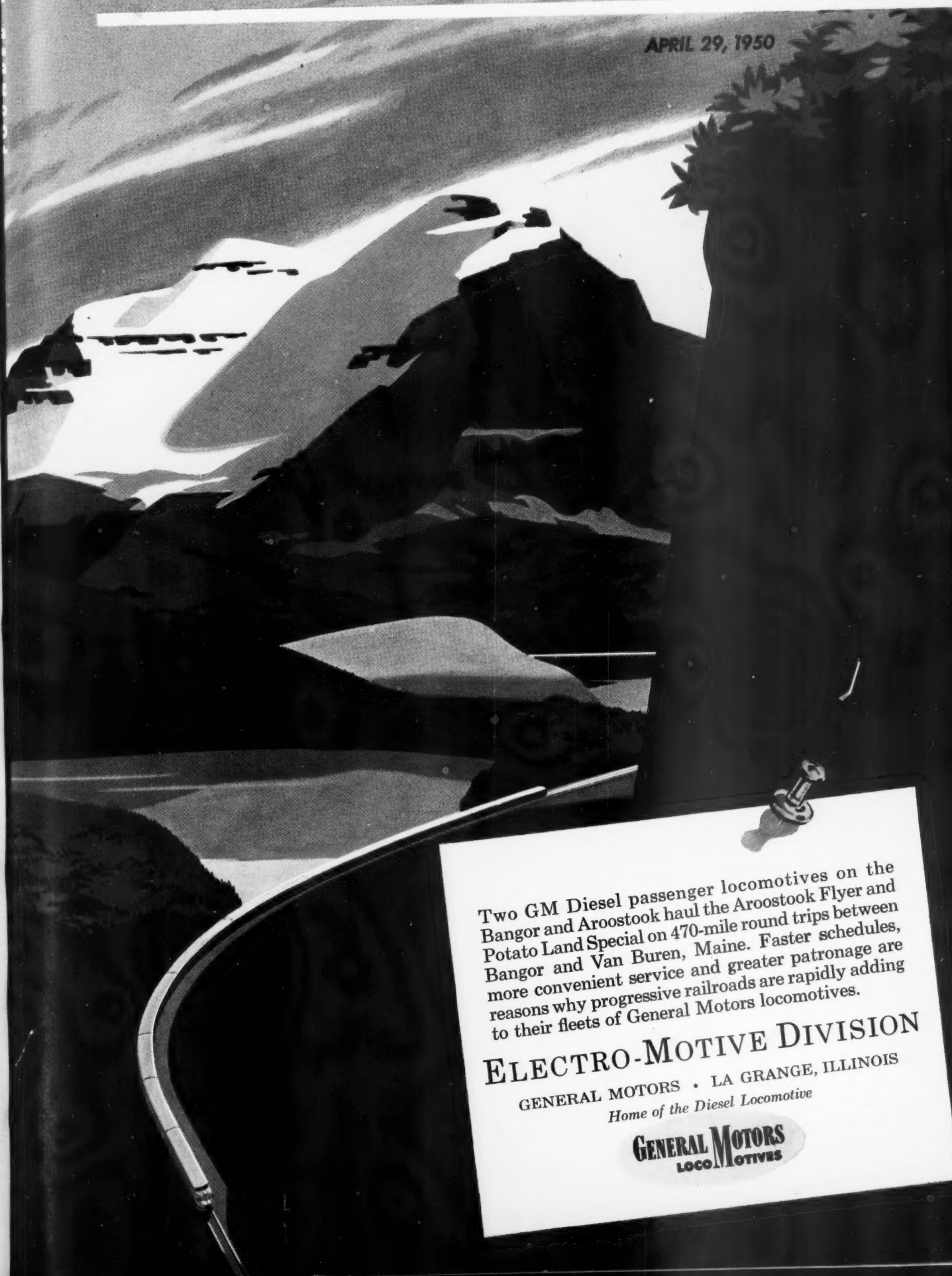


MAY 3 1950

RAILWAY AGE

APRIL 29, 1950



Two GM Diesel passenger locomotives on the Bangor and Aroostook haul the Aroostook Flyer and Potato Land Special on 470-mile round trips between Bangor and Van Buren, Maine. Faster schedules, more convenient service and greater patronage are reasons why progressive railroads are rapidly adding to their fleets of General Motors locomotives.

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS • LA GRANGE, ILLINOIS

Home of the Diesel Locomotive

GENERAL MOTORS
LOCOMOTIVES

LESLIE-TYFON

TRADE MARKS — REG. U. S. PAT. OFF.

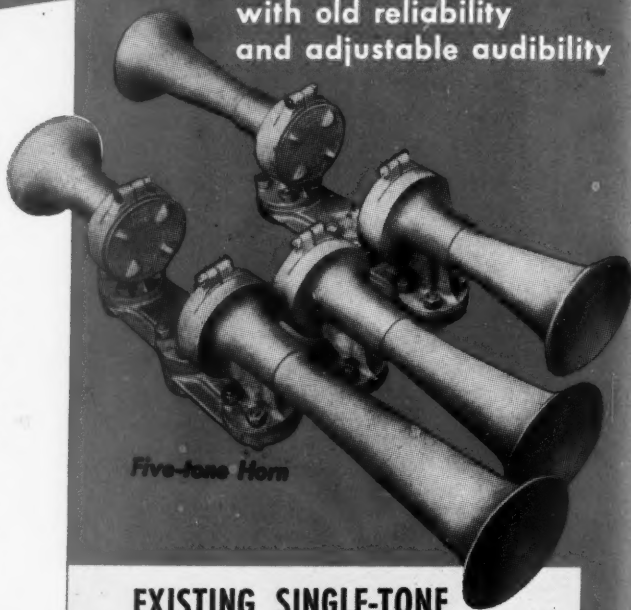


Single-tone Horn

AIR HORNS SINGLE-TONE and CHIME-TONE

for any requirement
with old reliability
and adjustable audibility

LESLIE CO. furnishes Single-Tone and Chime-Tone (2, 3, 4, or 5-tone) Air Horns with audibility and dependability that have resulted in more LESLIE-TYFON Air Horn installations on diesel locomotives *than all other makes combined.* There are sound reasons why it is the horn most frequently requested by railroads.



Five-tone Horn



Send for—

your copy of new Bulletin R-501 on LESLIE-TYFON Single-Tone and Chime-Tone Air Horns.



FLOATLESS LEVEL CONTROLS
SELF CLEANING STRAINERS

EXISTING SINGLE-TONE LESLIE-TYFON AIR HORNS READILY CONVERTED TO CHIME-TONE

Any existing A-200-LP or A-125-LP LESLIE-TYFON Air Horn can be readily converted to a Chime-Tone Horn by the use of a common mounting base and the addition of two or more A-125-LPA LESLIE-TYFON Air Horns. Details of this simple conversion method will be gladly furnished on request.

Lowest Overall Cost per Operating Year

251 Grant Avenue, Lyndhurst, New Jersey

PRESSURE REDUCING VALVES
• PUMP GOVERNORS
• AIR HORNS

• PRESSURE CONTROLLERS
• TEMPERATURE REGULATORS
• STEAM WHISTLES

RAILWAY AGE

With which are incorporated the Railway Review, the Railway Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.

Published by
SIMMONS-BOARDMAN
PUBLISHING CORPORATION
The House of Transportation
and Building

Publisher of
Railway Age
Railway Engineering & Maintenance
Railway Mechanical & Electrical Engineer
Railway Signaling & Communications
Car Builders' Cyclopedias
Locomotive Cyclopedias
Railway Engineering &
Maintenance Cyclopedias
American Builder
Marine Engineering &
Shipping Review
Marine Catalog & Buyers' Directory
Books covering transportation
and building

Office of Publication, Orange, Conn.
Editorial and Executive Offices at 30
Church Street, New York 7, N. Y.,
and 79 West Monroe Street, Chicago
3, Ill.

Washington 4, D. C.: 1081 National
Press Building—Cleveland 13: Termi-
nal Tower — Seattle 1: 1914 Minor
Avenue—Los Angeles 17: 816 West
Fifth Street—Dallas 4: 2909 Maple
Avenue.

Samuel O. Dunn, Chairman. James G.
Lyne, President. J. S. Crane, Vice-
President and Secretary. C. Miles
Burpee, Harry H. Melville, C. W.
Merriken, John R. Thompson, R. E.
Thayer, H. E. McCandless, Vice-
Presidents. J. T. DeMott, Treasurer.
Ralph E. Westerman, Arthur J. Mc-
Ginnis, Assistant Treasurers.

Subscriptions: including 52 regular
weekly issues, and special daily edi-
tions published from time to time in
New York or in places other than

IN THIS ISSUE

EDITORIALS:

How to Prevent Strikes on the Railroads	39
Diesels Haven't Nullified Law of Gravitation	40
Will Straight Electrification Come Back?	41

GENERAL ARTICLES:

Fairbanks-Morse Introduces Versatile "Consolidation Line" Diesel Locomotives	42
Southern Completes Large Lift Bridge	48
Waterfront Switching Road Likes Diesels	53
The "More Power to America" Special	54
"Gliding into State Socialism"	59
New and Improved Products of the Manufacturers	60

GENERAL NEWS 62

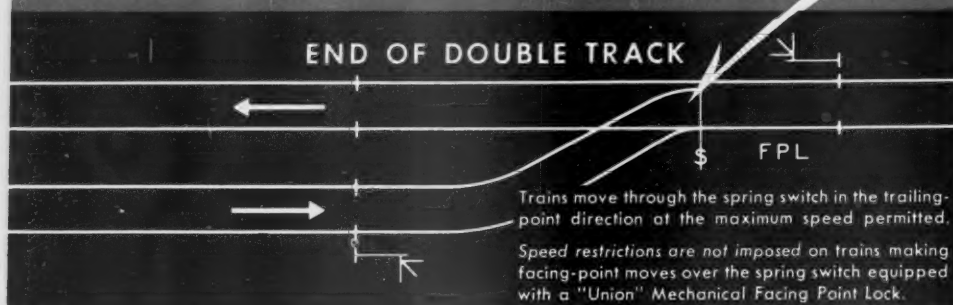
New York, payable in advance and
postage free — United States, U. S.
possessions and Canada: 1 year, \$6.00;
2 years, \$10.00; other countries not
including daily editions in Western
Hemisphere: 1 year, \$10.00; 2 years,

\$16.00; other countries: 1 year, \$15.00;
2 years, \$25.00. Single copies, 50 cents
each, except special issues.

H. E. McCandless, Circulation Mana-
ger, 30 Church Street, New York 7.

Railway Age is a member of Associated Business Papers
(A. B. P.) and Audit Bureau of Circulation (A. B. C.) and is
indexed by the Industrial Arts Index and by the Engineering
Index Service. Published each Saturday by the Simmons-Board-
man Publishing Corporation, Orange, Conn. Printed in U. S. A.

INSTALL A **"UNION"** MECHANICAL FACING POINT LOCK **HERE**

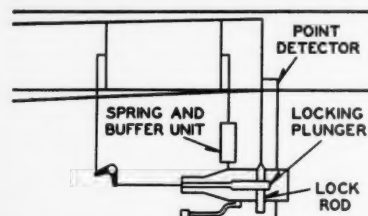


The end of double track is an ideal location for a spring switch . . . *providing it is equipped with a "Union" Mechanical Facing Point Lock.*

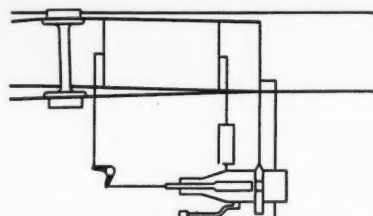
For facing point moves, the "Union" Mechanical Facing Point Lock provides protection equivalent to that of interlocked switches . . . at the same time retains the advantages of the spring switch for trailing moves. It prevents opening of the points in case of a broken spring in a spring head rod, and guards against shifting of the points under a train.

A built-in circuit controller for signal control checks the position of the switch points *and* locking plunger . . . and through the point detector continuously checks that the switch points are in the correct position and have not been damaged. For full particulars, call or write our nearest district office.

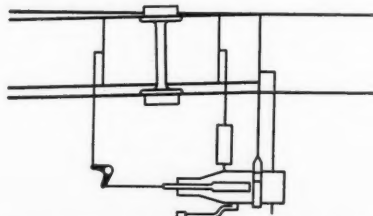
THIS IS WHAT HAPPENS
...when a train trails a
spring switch equipped
with a "Union" Mechan-
ical F. P. Lock.



In the normal position of the spring switch, the standard lock rod is locked by the locking plunger of the Mechanical F. P. Lock.



The flexing of the switch points by the leading wheels of the train automatically withdraws the locking plunger from the lock rod before the spring head rod starts to move.



As the train advances, the unlocked points are forced open against the spring action of the switch to permit trailing move . . . and after the train has cleared the switch, the points are returned to normal and locked for subsequent moves.



UNION SWITCH & SIGNAL COMPANY

SWISSVALE

PENNSYLVANIA

NEW YORK

CHICAGO



ST. LOUIS

SAN FRANCISCO

WEEK AT A GLANCE

MORE POWER TO AMERICA: This week in New York the General Electric Company unveiled its "More Power to America Special"—a specially built 10-car train which is just beginning a nationwide tour exhibiting to users and potential users a wide variety of G. E. power products, processes and techniques. The train itself, including its Alco-G. E. Diesel-electric locomotive and its 10 Pullman-built cars—which will eventually become the property of the Chicago, Rock Island & Pacific—is described and illustrated in the article which begins on page 54. The same article also outlines the train's purposes and some of the exhibits it contains.

"CONSOLIDATION LINE": On April 25 Fairbanks-Morse' versatile "consolidation line" of Diesel-electric locomotives was officially introduced to railroads and the public in a special 120-mi. run over the Milwaukee. The F.-M. road locomotives are available in units of from 1,600 to 2,400 hp. in standardized construction, with combinations of four- and six-wheel trucks to suit varying axle loadings and other requirements. They, and particularly the 4,800-hp. passenger locomotive, are described in detail, with illustrations and tables of specifications and specialties, in the article which starts on page 42.

NEW STEEL RATES APPROVED: Acting with gratifying speed, the I.C.C. on April 20 authorized eastern railroads to put into effect new reduced truck-competitive rates on a number of iron and steel products. The commission's action came only two days after the hearing—reported in last week's issue—at which truck operators and water carriers tried to have the rates suspended.

FOR A STRONGER RAILWAY LABOR ACT: One result of the threatened firemen's strike has been the introduction in Congress of a bill which would, in effect, make it mandatory for both parties in a railway labor dispute to accept the recommendations of a Presidential fact-finding board. The bill's provisions are outlined in our News account of strike developments, and are further discussed in our leading editorial—which also considers some of the broader aspects of railroad strike prevention.

SIC TRANSIT GLORIA: The Virginia & Truckee is to be abandoned; as our News pages report, final authority has just come down from the I.C.C. The end of the almost legendary little railroad's operations probably won't create much of an economic void; it will become, in memory, just another line built to serve a single purpose, long since fulfilled. But the V.&T. was something of a symbol of the great days of the American West—a link to a happier past when America was young and strong and self-reliant; when men were not afraid of work, and looked for "security" to their own minds and muscles rather than to political

handouts; when federal aid and the welfare state and communism were still unheard of; when loyalty was more than a word in the dictionary. The country would be better off today if it could recapture the spirit of the men who built and ran the V.&T.

EVEN THREATS COST MONEY: The "featherbed" strike for extra firemen on fireless Diesel locomotives has been postponed for two weeks at least, while the N.M.B. again tries its hand at settlement. One frequently overlooked aspect of the situation is that the entire dispute involves a number of other issues beside the demand for an extra fireman on road Diesels. Meanwhile, President E. E. Norris of the Southern has said that the mere threat of a strike has cost his company \$1,000,000. His statement, quoted in the News columns, shows how thoughtless threats of unjustified work stoppages react, not only on the companies against which the threats are directed, but also against the very employees whose interests unions are supposed to promote.

TOMBIGBEE BRIDGE: Beginning on page 48 is a well illustrated article on the big new lift bridge which carries Southern tracks across the Tombigbee river at Jackson, Ala. Aside from its interest as an engineering feat, the bridge is also noteworthy as being the first major railroad structure to be built under the terms of the Truman-Hobbs Act of 1940. How that act worked out in this particular case is told in the article, along with a description of the technical features of the bridge itself.

WATERFRONT SWITCHING: Actual facts and figures are the meat of the short feature article on page 53, which shows how complete conversion from steam to Diesel power has enabled the State Belt Railroad of California to reverse a general trend of rising costs and to effect marked economies in its operations.

NEWS HIGHLIGHTS: Further testimony, by Gregory S. Prince of the A.A.R. and W. L. Grubbs of the L.&N., before the Senate's subcommittee on domestic land and water transportation.—Marion S. Wise, president of Central of Georgia, dies of heart attack.—Monthly report of equipment on order.—C. of Ga. asks authority to acquire control of Savannah & Atlanta.—N.Y.C. to begin revenue service with Budd RDC-1s on May 1.—Two Canadian unions to take strike vote.—*Railway Age* again wins National Safety Council Public Interest Award.—I.C.C. okays west coast water-competitive rates.—Southern orders 40 more Diesel units.—Emergency board reports on switchmen's 40-hr. case.—Indiana Congressman finds "subsidies" in payments to railroads for transportation of mail.—Red River of North floods hit Northerns and Soo.—House committee on expenditures in executive departments favors President's plan to revamp I.C.C. despite strong opposing testimony.

FEWER PARTS . . . LESS WEIGHT INCREASED CAPACITY

BARCO STEAM CONNECTIONS

Only 2 joints, gaskets and springs per connection instead of 4.

Lightweight steel welded construction, reducing the weight approximately 30% and requiring less labor to handle.

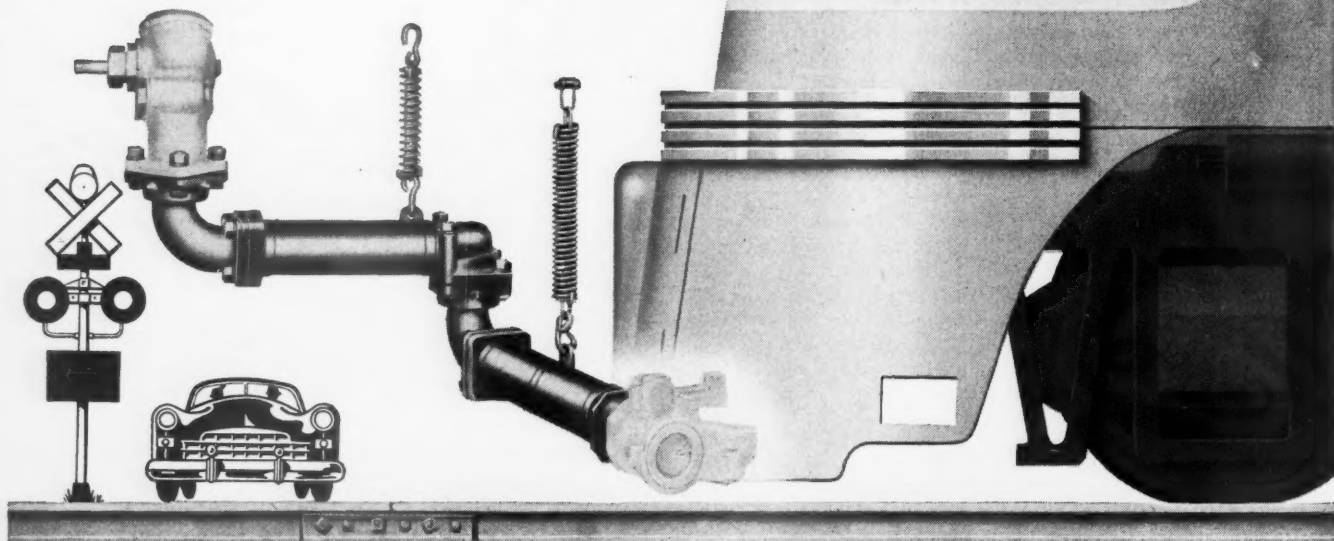
This construction also reduces the number of parts necessary for the men to handle and for the store department to carry in stock.

Maximum steam capacity.

Pressure-sealed, hard, long-wearing gaskets eliminate the possibility of sudden failure.

Hardened steel chromium plated balls provide movement in all directions.

Write Barco Manufacturing Co., 1800E Winnemac Avenue, Chicago 40, Illinois. In Canada: The Holden Co., Ltd., Montreal, Canada.



BARCO..

**STEAM HEAT CONNECTIONS
FOR PASSENGER CARS, DIESEL,
STEAM AND ELECTRIC LOCOMOTIVES**

FREE ENTERPRISE—THE CORNERSTONE OF AMERICAN PROSPERITY

RAILWAY AGE

PUBLISHER . . .
Samuel O. Dunn
EDITOR . . .
James G. Lyne
MANAGING EDITOR . . .
C. B. Tavenner
WESTERN EDITOR . . .
William H. Schmidt, Jr.
NEWS EDITOR . . .
Gardner C. Hudson
WASHINGTON OFFICE . . .
Walter J. Taft
Joe W. Kizzia
ELECTRICAL DEPARTMENT . . .
Alfred G. Oehler

TRANSPORTATION DEPARTMENT . . .
Robert G. Lewis

MECHANICAL DEPARTMENT . . .
C. B. Peck
E. L. Woodward
H. C. Wilcox
C. L. Combes
G. J. Weihofen

ENGINEERING DEPARTMENT . . .
M. H. Dick
Walter L. Turner, Jr.
Henry E. Michael
Norris V. Engman
Radford E. Dove

PURCHASES & STORES DEPARTMENT . . .
John W. Milliken

EQUIPMENT & FINANCIAL NEWS . . .
Fred C. Miles

SIGNALING AND COMMUNICATIONS
DEPARTMENT . . .
John H. Dunn
Maurice Peacock

ASSOCIATE EDITOR . . .
Charles Layng

LIBRARIAN . . .
Edith C. Stone

EDITORIAL ASSISTANT . . .
Elaine C. Farrar

HOW TO PREVENT STRIKES ON THE RAILROADS

The threatened strike of railroad firemen — postponed for two weeks a few days ago — is no isolated phenomenon. It is far more important as a *symptom* than as an actual danger in itself. The really significant fact is that the much-praised Railway Labor Act has completely broken down as a mechanism for protecting the public from the danger and inconvenience of railway strikes. As a consequence, strikes on the railroads must now be recognized as endemic. They will continue to be so until the law is changed.

Cause of Strikes

Why have the once "conservative" railroad unions departed from their long-held tradition of abstaining from strikes? Railroad unionists in times past were deterred from striking because in those days strikes were sometimes lost, and the penalty for losing — loss of seniority — falls more severely on railroad employees than it does on any other class of industrial labor. In the building trades, for example, seniority has little force — the man with thirty years' experience is treated no differently as to wages or working conditions from the man who has just learned the trade. In railroading, by contrast, the "old heads" have the comfortable hours, steady work and high pay — and the jobs with longer and less convenient hours, plus "fighting the extra board" for years, fall to the lot of the newer names on the roster.

No railroad man with several years' seniority will strike, without extreme aggravation, unless every assurance is given that by such action he runs no risk of losing his job and his seniority.

The reason the country now suffers from frequent railroad strikes, and from almost constant threats of them, is that all fear has been removed from railroad unionists that they will lose anything by striking. The beginning of the breakdown of the Railway Labor Act came in the early Thirties when legislation was enacted which made it difficult if not impossible for employers to fight strikes — e.g., they were forbidden to transport "strikebreakers" across state lines. There is no provision in the Railway Labor Act which forbids strikes — and none was needed so long as extra-legal forces served to prevent them. The "mobilization of public opinion," led by the President of the United States, was counted upon to enforce the awards of "emergency boards," and thus forestall industrial warfare. This tradition held until 1941 on the eve of Pearl Harbor when, the unions not liking an "emergency board" decision in a wage increase case and threatening to walk out, the late President Roosevelt did nothing whatever to "mobilize public opinion" against the dissidents. Instead, he called upon his "emergency board" — who as judges had already defined where justice lay in the dispute — to descend from their judicial role, and, as mediators, to persuade the railroads to concede to the recalcitrants as much as was necessary

beyond the demands of justice to induce them to refrain from striking.

That act of President Roosevelt's put an end to the "emergency board" as the court of last resort in the settlement of labor difficulties on the railroads. The railroads, of course, have never refused in a dispute of any significance to abide by the decisions of these boards. The unions, on the contrary, have hardly ever, since 1941, accepted any of the boards' decisions, if they have had any reason whatever for dissatisfaction. The threat of railroad strikes plagued the country periodically throughout the war years, but the unionists were bought off each time. Finally, in 1946 a nation-wide strike of enginemen and trainmen actually occurred. Some harsh words were spoken by President Truman, and the strike ended abruptly — proving that the force of public opinion, if consistently and dependably mobilized by the President, *could* probably still prevent strikes. But no unionist who quit work in 1946 lost anything from the experience and strikers on individual railroads since that time have suffered no penalties. The result is that no railroad man today has any fear whatever that a walk-out might jeopardize his job or his seniority.

Power Without Responsibility

This paper has preferred, and still prefers, legislation to outlaw monopolies — including labor monopolies — rather than the legitimization of monopolies, followed by their regulation. But the actual condition which confronts the country today is one of complete acceptance by dominant political authority of labor monopolies — combined with excessive reluctance to regulate them effectively or even at all. Hence the unions have the power to disrupt the nation's economic life at will, while having no accountability whatever for the resulting chaos. The situation is a daily invitation to disaster. It is bad enough when the supply of coal or steel or automobiles is cut off for a month or more. It will be real doom when a long shut-down comes in railroad service or in the other utilities where production and consumption are a simultaneous process.

The union leaders did not assume the power they are now wielding. It was given to them by political action — legislative and administrative. This improvident donation, with an implied invitation to misuse it at will, can be taken back in the same manner that it was given. No additional "sanctions" are actually needed against the railroads to prevent their defiance of "emergency board" decisions because experience has shown that the railroads accept the findings of the boards anyhow. Of course, the railroads could afford to accept relatively severe penalties, applicable to both parties, because they will accept the awards in any case. "Sanctions" to insure compliance by the unions need not, however, be severe.

Indeed, it would probably be sufficient if all

inhibitions were removed against the railroads in the hiring of new employees to replace strikers in defiance of emergency board awards; and if, in fact, the railroads were encouraged in such replacement — putting sympathy strikers and non-striking employees who refuse to cross picket lines in the same category as the strikers.

Only Practicable Solution

To repeat: Railroad men will not strike, unless provoked beyond endurance, if they have reason to believe that striking will jeopardize their hold on their seniority. Senator Donnell of Missouri has introduced a bill, S.3463, to outlaw railroad strikes or lock-outs in defiance of awards by Presidential boards. Without weighing the merits of the bill's specific provisions, its basic approach is unquestionably sound: the only practicable solution to the present dangerous drift in industrial relations on the railroads lies in substantial amendment of the Railway Labor Act.

DIESELS HAVEN'T NULLIFIED LAW OF GRAVITATION

Penicillin is a new drug and a wonderful one, but it will not cure a broken arm. It is no favor to as proficient a tool as the Diesel-electric locomotive is to expect it to answer each and all of the railroad's operating problems. The Diesel will operate more economically on good track than on bad — and on easy grades and curves than on severe ones; so the existence of Diesels has not destroyed the desirability of better line and grade.

Through its superior operating characteristics, the Diesel has so increased tonnage ratings and operating speeds that the level at which curve and grade reduction projects can be economically justified has been raised. But to change the location of a boundary line does not eliminate it. Even with Diesels, there remain limiting conditions from roadway which can be profitably eliminated.

This situation was brought forcefully to mind by an address by John Barriger, president of the Monon, at the recent annual meeting of the American Railway Engineering Association in Chicago. He underlined the many economically justified line and grade improvement projects still remaining on the railways, and emphasized that the improvements in operation and service, and reduction in expenses, which follow the substitution of Diesels for steam power on lines with sharp curves and heavy grades, should never blind operating and engineering officers to the still greater benefits which will follow the use of the same Diesels on the same routes after the

physical characteristics of these routes have been improved.

"Diesels can do wonders," he said, "but they don't cancel out Isaac Newton's law of gravitation." This fact has been demonstrated effectively on the Monon in the differing operating performance of Diesels on the north and south halves of its 300-mi. line between Chicago and Louisville, Ky. On the north half, which has favorable grades and alignment, 4,500-hp. Diesels can handle 8,000-ton freight trains and maximum-length passenger trains easily, at speeds approximating maximum authorized limits; whereas, on the south half of the line which has heavy grades and sharp curvature, the tonnage of trains, with the very same Diesels, is limited to 3,300 to 3,500 tons, and train speeds are severely restricted.

Mr. Barriger said that similar unfavorable conditions exist on many roads, and justify investing a large amount of capital to overcome them. Such a statement by an ardent railroader who has made a life-long study of the problems first thoroughly expounded by Wellington should suffice to stimulate re-examination of all adverse route situations, looking to eliminating handicaps that are not only restricting the full operating possibilities of Diesel power, but which are seriously limiting improvements in service.

WILL STRAIGHT ELECTRIFICATION COME BACK?

A railroad electrification study is to be made by the Battelle Memorial Institute, Columbus, Ohio. The administrative sponsor of the program is the Edison Electric Institute and supervision will be entrusted to a capable group of representatives of railroads, manufacturers, electric power companies and coal producers.

Steam railroad electrification in this country has been confronted by circumstances essentially different from those in the rest of the world. Begun in 1895, it was applied to relieve difficult tunnel and terminal conditions, for heavy-grade operation and for the movement of suburban trains. Many believed that this new form of motive power would completely displace the steam locomotive. Sections of railroads were electrified until 1937, but since then there have been no further main line installations and a few have been abandoned. Diesel-electric locomotives operate over one electrified section. The total road-miles electrified is less than 3,000 and the track-miles a little over 6,000.

Why has this come to pass, seeing that the electric locomotive has the most nearly ideal operating characteristics of any form of motive power? The two

most important reasons are as follows: First, electrification requires a large capital expenditure which must be amortized over a long period of years. Railroad credit has not been such as to encourage efforts to raise such sums of money, and with the government supplying the roadway for other forms of transportation it is impossible for railroad managements to estimate with any assurance what their traffic requirements are likely to be 20 or 40 years hence. Second, an electric locomotive cannot run out from under the overhead wire and its mobility is confined to the electrified section. A third deterrent is the fact that fixed transportation property in private ownership is subject to *ad valorem* taxation.

Perhaps these three obstacles are not insurmountable, but there is also to be considered the competition of the Diesel-electric, the gas turbine-electric and perhaps other forms of self-propelled locomotives. The Diesel is currently so dominant that when a railroad man is asked about steam power, he evidences little interest—in spite of the fact that most freight traffic is still hauled by steam locomotives. Similarly, it is difficult to divert discussion, even briefly, from Diesels to a revival of apparently dead electrification.

The Diesel locomotive also presents another problem. It not only offers competition to electrification, but the potential manufacturers of electric locomotives are also makers of Diesels, and are largely indifferent as to which type of "electric locomotive" they build for the railroads. This limits the competition which might otherwise serve to stimulate electrification.

The situation in the coal industry also inclines railroad operators to favor a type of fuel which is in more dependable supply.

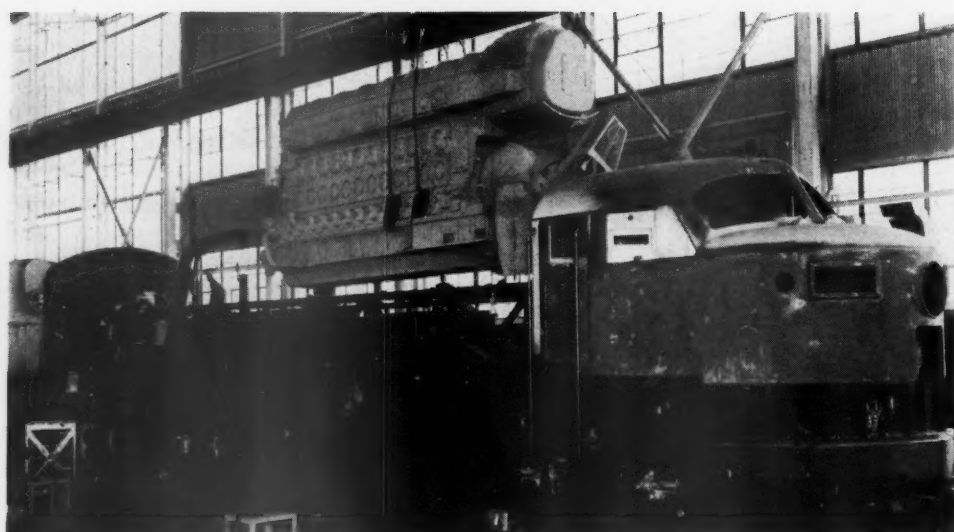
Why then the persistent interest in railroad electrification? First, as has been said, it is ideal from an operating point of view. Then there is the question of what might happen to the price of oil, when the nation's coal resources are so much more abundant. Studies made recently have shown ways of lowering the cost of overhead structures and electric locomotives. A rectifier assembly has been built which can employ the advantages both of the high voltage, alternating current, overhead contact system and the direct-current traction motor. It might permit the use of a 60-cycle contact system, thereby eliminating the special generation of 25-cycle power. With this arrangement, power could be supplied from existing distribution systems.

It has been said that if the rectifier car, or locomotive, had been available a few years ago when electrification studies for a large railroad were in progress, the final decision to buy Diesels might have been changed. Some benefits of the study to the railroads seem certain. Important information will be developed which will be stimulating to the kind of competition highly appreciated by railroad operators.

Fairbanks-Morse Introduces Versatile



The "Consolidation Line" 4,800-hp. passenger locomotive has a top speed of 110 m.p.h. and a continuous tractive force of 60,000 lb. at 25.6 m.p.h.



Above—First deliveries of the Consolidation Line were 2,000-hp. B-B freight units to the New York Central

Left—When the hatches are removed the locomotive is highly accessible for maintenance

"Consolidation Line" Diesel Locomotives

Road locomotives with 1,600 to 2,400 hp. per unit available in standardized construction with combinations of four- and six-wheel trucks to suit varying axle loading and other requirements

The Fairbanks-Morse "Consolidation Line" of Diesel-electric locomotives was officially introduced to the railroads and the general public by Robert H. Morse, Jr., president of the company, during a trial run of the 4,800-hp. passenger model between Chicago and Sturtevant, Wis., on April 25. During the 120-mile round trip of the special train over the Chicago, Milwaukee, St. Paul & Pacific, Mr. Morse and other officers of Fairbanks, Morse & Co. were hosts to members of the press.

The initial order for Consolidation Line locomotives, comprising 15 2,000-hp. freight units, is currently being delivered to the New York Central. The first four of these units were delivered in March and are in high-speed freight service on the Boston & Albany and West Shore lines.

Consolidation Line locomotives have power-plant ratings of 1,600, 2,000 or 2,400 hp. in one standard basic structure. All capacities are powered by a single standard Fairbanks-Morse opposed-piston engine in which only the number of cylinders is varied to suit the power output requirements.

Two different wheel arrangements are used, B-B or B-A1A. Two four-wheel trucks are used where possible for maximum traction. A six-wheel truck, with a center idler axle, is substituted for the rear four-wheel truck when needed to support the additional weight resulting from the addition of a heating boiler, or to keep axle

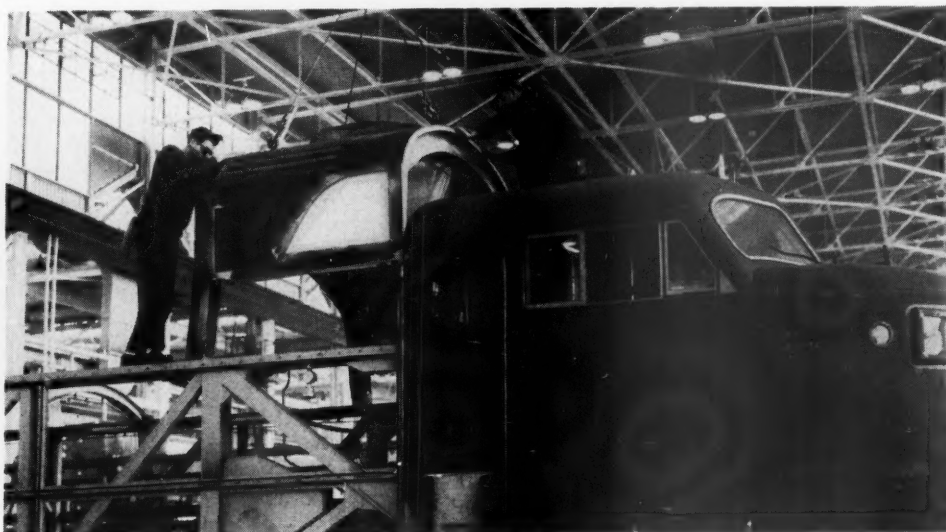
WHAT PRESIDENT ROBERT H. MORSE, JR., TOLD THE PRESS.—"This Diesel-electric passenger locomotive of 4,800 hp. that you have inspected today represents the greatest advance in motive-power engineering and design in recent years. You will read or be told of its many advantages to the railroads. The 'Consolidation' line of road passenger and freight Diesel power, of which this 4,800-hp. two-unit passenger locomotive is a prototype, represents the Fairbanks, Morse & Co. bid for an expanding position as a major supplier of locomotives to the American railroads."

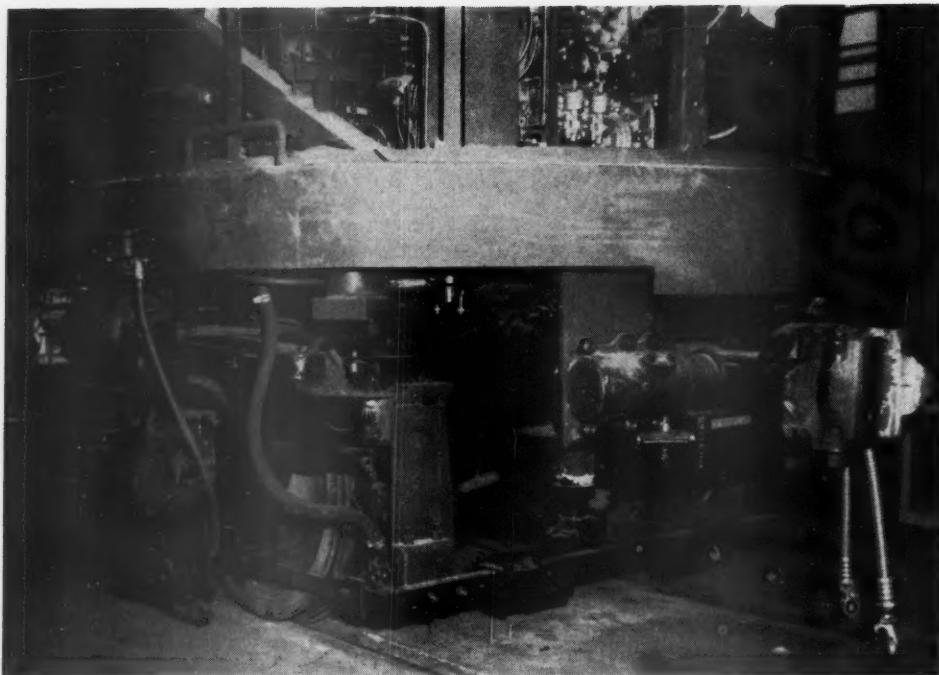
loads to a minimum where required by light rail or bridge conditions.

With the B-A1A wheel arrangement, the C-Line 2,400-hp. passenger unit is 20 tons lighter than the previous Fairbanks-Morse passenger units of only 2,000 hp. with the conventional A1A-A1A running gear. At the same time, the weight on drivers is increased by 4 tons. This saving in weight, plus the increase in horsepower and weight on drivers, permits handling about one more passenger car per Diesel unit.

In general, Consolidation Line freight locomotives have two four-wheel trucks for all three horsepower ratings to provide maximum starting traction. The 1,600-hp. passenger locomotives also have two four-wheel trucks, while the two larger passenger ratings

Right—The top chord of the side truss is about 2 ft. below the top of the locomotive and to it bolt the three roof hatches complete with subassemblies





Close-up of one end of the locomotive showing the coupler-centering device and the jacking pad

have a six-wheel rear truck to support the weight of the heating boiler and water. All three ratings for either freight or passenger service have 42-in. wheels to keep the running gear loading within the limits of the Association of American Railroads and the American Railway Engineering Association. Nine gear ratios are available with any horsepower rating to furnish the desired combination of speed and tractive-force characteristics.

A feature of the design of the Consolidation Line is the construction around standard subassemblies which are assembled in the locomotive by connecting preset wires, piping, etc. All like subassemblies are interchangeable, and all connections are standard.

The 4,800-hp. Passenger Locomotive

Leader of the new C-Line and typifying the construction features of the entire line is the 4,800-hp. two-unit passenger locomotive. This locomotive entails not only refinements to previous designs, but establishes a new high in horsepower per unit of length—42½ hp. per ft.

A feature of the basic structure is the design and location of the top chord of the side truss. This chord runs continuously from the bulkhead at the rear of the operating cab to the rear collision post. It is located just below the louvers which extend the full length of the engine compartment. The three roof or hatch sections are fastened to the locomotive by large-diameter bolts through the top chord.

This method of construction serves two purposes. First, the roof sections are interchangeable. The No. 1 hatch contains the dynamic-brake equipment, when required, and the No. 3 hatch contains the entire engine cooling system. Therefore, maintenance of such equipment can be carried out by substitution of spares with a minimum out-of-service time for the locomotive. These

two roof sections contain wiring or piping with suitable standard connections, and are generally designed for easy removal and replacement. The No. 2 hatch extends over the engine and has no subassembly. It does have an access cover that extends over the top of engine. The cover is divided into three hinged sections, each light enough for one man to lift, so that liners and other small parts can be replaced without removing the center roof hatch.

Second, the quick removal of a large section of the roof as afforded by this type of construction speeds up the removal of large pieces of equipment which may require overhaul, such as the steam generator or air compressor. The lower location of the top chord also permits replacement of parts with 2 ft. less lift, an advantage to those shops with limited overhead clearance.

The larger equipment components, such as air brake, electrical, main engine and auxiliaries, and the steam generator equipment have been definitely grouped in the general arrangement of the basic units so as to isolate disparate maintenance functions.

The entire design is aimed toward interchangeability of all major assemblies between basic units of any horsepower rating, as well as interchangeability of small replacement parts within those major assemblies.

Design Modifications Available

Dynamic-brake equipment together with appropriate interlocking of the dynamic-brake system and the air-brake system can be installed on any model during construction or after placing in service. Coupler centering devices are incorporated to assure proper alignment of the locomotive units in dynamic brake operation.

The basic design of the steam generator equipment is arranged for ready application of single steam generators which range from 1,600 to 4,000 lb. per hr.

generating capacity. The arrangement is such that the steam generator is completely accessible from three sides and across the top surface.

The steam-generator feedwater supply can be enlarged to a total of 2,000 gal., subject to axle loading specifications of the individual railroad, and the entire storage capacity is arranged at the same level in three large tanks. These tanks are filled simultaneously from the top and are connected for supplying the boiler at the floor level.

The air-brake equipment, all of which is located between the air compressor and the No. 1 end collision post, has been designed for application of all ramifications of the No. 24RL air brake schedule without change in piping or rearrangement of the various pieces of equipment. All pieces are accessible for removal, cleaning and inspection, independent of other pieces.

Space has been planned and reserved in the basic unit for installations of the largest combinations of train control, cab signal and train communication equipment in use or known to be contemplated. The locomotive control equipment has been designed so that it is readily adaptable by minor changes for multiple-unit operation with locomotives of other manufacture.

The fuel capacity, normally 1,200 gal., may be increased subject to clearance and axle loading specifications of the railroad.

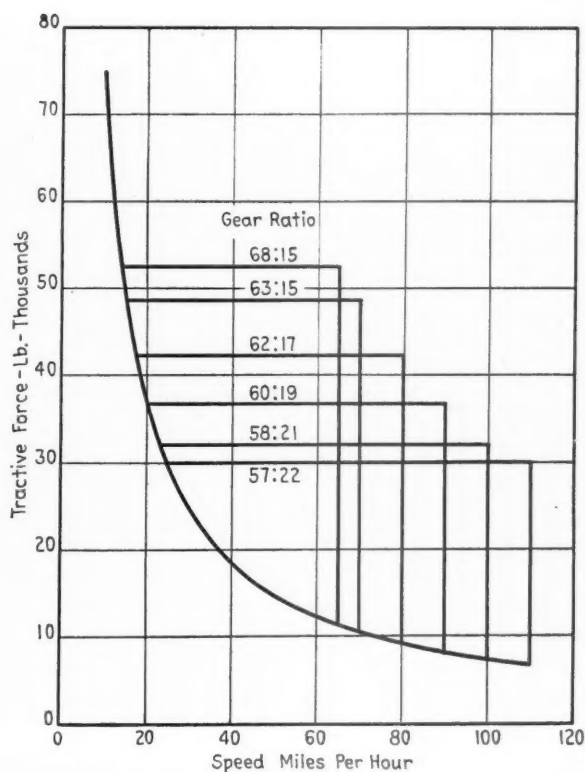
The locomotive has been simplified through the use of alternating-current auxiliary equipment with the alternator mounted on the air-compressor shaft. A further simplification is the use of permanent series-paralleled traction-motor connections with the progressive steps of traction-motor field shunting to match the traction-motor characteristics to the main generator characteristics through the entire speed range of the locomotive.

Underframe and Superstructure

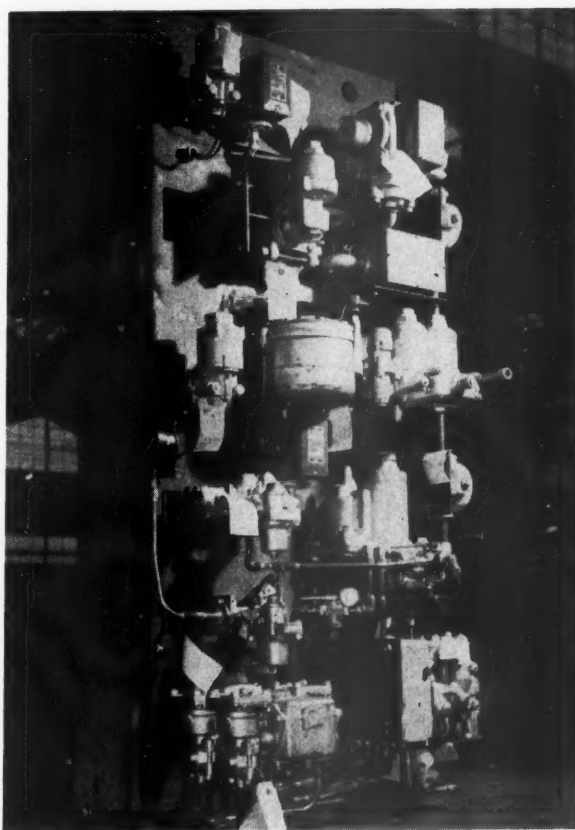
Each 2,400-hp. unit of the 4,800-hp. locomotive has a welded steel underframe and superstructure with draft-gear pockets built integral with the underframe. A.A.R. Type H tightlock couplers and rubber draft gear are used in conjunction with spring-loaded centering devices.

The welded steel pilot is fitted with double-hinged portions which can be retracted to provide generous clearance when the number-one end of an A unit is coupled to a train. The underframe has a body bolster located both slightly ahead of and slightly to the rear of the rear engine compartment door to permit change-over between a four-wheel and a six-wheel truck any time during the life of the unit.

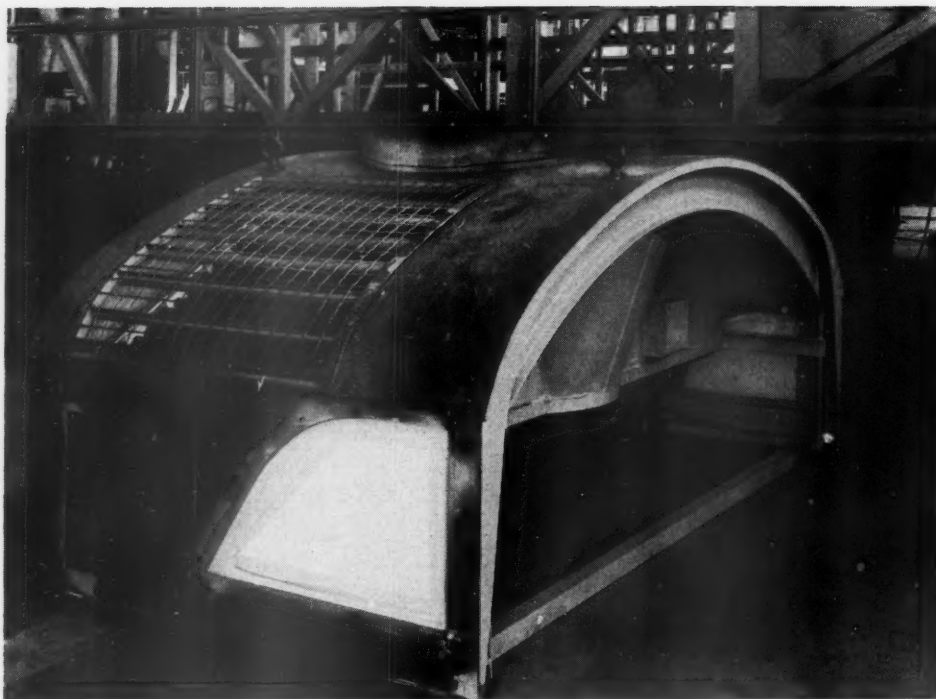
Mounted on the underframe is the fuel tank and fully ventilated battery box assembly with the batteries arranged longitudinally on each side for equal accessibility to each cell. The 1,200-gal. welded steel fuel tank is fitted with a direct-reading sight gage so that overflow can be avoided during filling operations, and with a hydrostatic fuel level indicating gage mounted adjacent to the engine control panel. The underframe is so designed and finished that there are eight permissible lifting points, one at each end of each bolster, and one at each corner of the underframe. The lifting points on the corners of the underframe are located near the outer edge to permit lifting at as near a vertical



The speed-tractive force curve for the 2,400-hp. C-Line locomotive



The air-brake equipment is mounted on a panel from which any part is easily removed for servicing



The dynamic braking equipment is carried complete in the No. 1 roof hatch

angle as possible, thus reducing the capacity of the crane required to lift the locomotive.

The superstructure is made up of seven major sub-assemblies: the nose and cab weldment, two truss weldments forming the sides, the No. 2 end frame, and the three main roof hatches.

The cab is insulated against noise and heat. The cab heating plant is arranged to recirculate cab air via the nose compartment, fresh air intake being regulated by the engine crew by use of the triangular forward side windows which pivot on a vertical axis.

The nose section is approximately 3 ft. shorter than on previous F.-M. road locomotives. This economy of length, together with unusually large windshield area, affords improved visibility, as well as a reduction in weight.

The side truss top chord is a U-section in which is carried all control and auxiliary locomotive wiring. These ducts are fitted with closing plate sections which may be removed as required.

The Running Gear

The trucks are of conventional drop equalizer, swing bolster design. Provisions are made for truck shimming at spring and equalizer seats. Of distinction are the following features:

- 1—Adaptability to standard 6½-in. by 12-in. roller-bearing journal housings of four manufacturers.
- 2—Interchangeability of all parts between the six-wheel and the four-wheel trucks except the frames, bolsters, equalizers and swing hangers.
- 3—Renewable thrust wear plates which hold all brake hangers in accurate alinement with the wheels, thus eliminating tie rods and overcoming the absence of any such provisions for the inside brake hangers on drivers.

GENERAL CHARACTERISTICS AND DIMENSIONS OF THE FAIRBANKS-MORSE CONSOLIDATION LINE 4,800-HP. PASSENGER LOCOMOTIVE

Horsepower: Net to generator for traction	4,800
Type	0-4-6-0
Whyte symbol	8-A1A
A.A.R. symbol	
Weights (in working order), lb.:	
Total fully loaded	618,000
On drivers	506,000
Per driving axle	63,250
On idler axle	56,000
Principal dimensions, ft.-in.:	
Gage	4-8½
Overall length (inside knuckles)	113-0
Overall width	10-6
Overall height above rail	15-0
Truck wheel base, front	9-4
Truck wheel base, rear	15-6
Total wheel base	96-8
Wheel diameter, in.	42
Steam generator capacity, lb. per hr.	8,000
Traction force, lb.:	
Starting, at 30 per cent adhesion	151,800
Continuous, at 25.6 m.p.h.	60,000
Maximum speed, m.p.h.	110
Minimum radius curvature, locomotive alone, ft. (deg.)	273 (21)
Supplies:	
Fuel oil, gal.	2,400
Lubricating oil, gal.	800
Engine cooling water, gal.	700
Sand, cu. ft.	40
Heating water, gal.	3,600

4—Optional foundation brake-rigging lever ratios ranging from 6.1 to 7.64.

5—Brake rigging arranged for use of automatic slack adjusters on the four-wheel power truck.

Three Standard Power Plants

Each 2,400-hp. unit is powered by an F.-M. 12-cylinder opposed-piston engine rated 2,400 hp. for traction at 850 r.p.m. This is the most powerful single Diesel engine installed in locomotives. On the basis

of brake horsepower for traction per cylinder, this engine rating is equivalent to the established ratings of other opposed-piston engines used throughout the entire line of F.-M. Diesel-electric locomotives.

The engine cooling system includes four fans powered by Fairbanks-Morse axial-air-gap a.c. motors. Fan motors and shutter opening are automatically controlled. The lubricating-oil filtering, cooling and straining systems are in accordance with the requirements of the engine and utilize replaceable elements. Engine load and speed are automatically regulated by an electro-hydraulic governor in response to signals from the engineman's throttle or master controller. Incorporated in the governor are a low lubricating-oil pressure protection device and a load regulating rheostat.

Electrical Equipment

The main generators and traction motors are of the latest Westinghouse Electric Corporation design. The 4,800-hp. passenger locomotive has a maximum permissible speed of 110 m.p.h., yet develops a continuous tractive force of 60,000 lb. at 25.6 m.p.h.

A 25-kw. auxiliary generator provides ample capacity for all combinations of load demand from steam generators, train control, electro-pneumatic air-brake control, signal headlights and other appurtenances.

Traction-motor blowers are powered by F.-M. axial-air-gap a.c. motors. These motors are connected to an F.-M. alternator through a multiple control switch so arranged that normal blower speed is doubled for improved traction-motor cooling during dynamic-brake operation.

High-Capacity Dynamic Brakes

The dynamic braking resistors and blower can dissipate energy equivalent to the engine output at the rail of the 2,400-hp. units. When this same dynamic braking unit is used with the 1,600-hp. engine, the energy dissipation capacity is 50 per cent greater than the engine output at the rail.

Schedule 24RL air brake equipment is used throughout, incorporating the "deadman" safety control, locomotive overspeed control with suppression features, electro-pneumatic straight air brakes and speed governor control.

The 56,000-cu.-in. main reservoir capacity is provided in two equal reservoirs. Aftercooling radiators consist of five parallel finned tubes totaling 27½ lineal feet connected ahead of the No. 1 main reservoir and an identical assembly connected between the No. 1 and No. 2 reservoirs. All connections to the main-reservoir supply are after the No. 2 reservoir. The entire main-reservoir system is mounted under the raised cab floor in a compartment subject to outside ambient temperature and sealed from other parts of the locomotive.

The engine, main generator, traction-motor blowers and air compressor are supplied intake air from the engine-room space which, in turn, is supplied through impingement-type air filter panels mounted in the No. 1 and No. 2 hatch assemblies. Engine intake air is again passed through identical filter panels before entering the positive displacement blower.

A Vapor Heating Corporation steam generator hav-

PARTIAL LIST OF MATERIALS AND EQUIPMENT FOR THE FAIRBANKS-MORSE CONSOLIDATION LINE LOCOMOTIVES

Opposed-piston Diesel Engine; a.c. electrical machinery; cooling fans	Fairbanks, Morse & Co., Chicago
D.C. electrical machinery; d.c. control equipment; a.c. contactors; traction-motor blowers	Westinghouse Electric Corp., Pittsburgh, Pa.
Air-brake equipment; speed-governor control; electro-pneumatic brake; warning horns	Westinghouse Air Brake Co., Wilmerding, Pa.
Wheels; axles; equalizers ..	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Draft gear	National Malleable & Steel Castings Co., Cleveland, Ohio
Foundation brake rigging; coupler centering device; truck springs	American Steel Foundries, Chicago
Truck frames & bolsters ..	General Steel Castings Corp., Eddystone, Pa.
Composite train-control and cab-signal equipment ..	Union Switch & Signal Co., Swissvale, Pa.
Speed recorder	Barco Manufacturing Co., Chicago
Journal bearings	Timken Roller Bearing Co., Canton, Ohio
Paint	E. I. duPont de Nemours & Co., Wilmington, Del.
Batteries	Electric Storage Battery Co., Philadelphia, Pa.
Cooling system thermostatic control equipment	Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Shutters, cab heaters and defrosters	Kysor Heater Co., Cadillac, Mich.
Headlight; signal light; class lights; jumpers and receptacles	Pyle-National Co., Chicago
Engine governor	Woodward Governor Co., Rockford, Ill.
Steam generator; steam-line end valves; steam-line connectors; remote boiler control	Vapor Heating Corp., Chicago
Hand brake	National Brake Co., New York
Sanding equipment	Prime Manufacturing Co., Milwaukee, Wis.
Side panels	Met-L-Wood Corp., Chicago
Cab seats	American Seating Co., Grand Rapids, Mich.
Windshield wipers	Sprague Devices, Inc., Michigan City, Ind.
Air filters	Farr Co., Los Angeles, Cal.
Lubricating oil filters	Michiana Products, Inc., Michigan City, Ind.
Lubricating oil strainer elements	Air-Maze Corp., Cleveland, Ohio
Fuel oil filters	Puralator Products, Inc., Newark, N. J.
Fuel oil filters	Wm. Nugent Co., Chicago
Radiators	Yates-American Machinery Co., Beloit, Wis.
Oil-heat exchangers	Ross Heater & Mfg. Co., Buffalo, Wis.
Engine snubber and silencers ..	Burgess Manning Co., Chicago
Cab insulation	Reynolds Metals Co., Louisville, Ky.
Indicating lights	Dial Light Co. of America, New York
Pressure gauges	Manning, Maxwell & Moore, Inc., Bridgeport, Conn.
Flexible coupling	Falk Corporation, Milwaukee, Wis.

ing a nominal rating of 4,000 lb. per hr. is located under the No. 3 hatch of each unit. Each unit carries 1,800 gal. of train heating water in addition to the dynamic braking equipment. The steam generators are fitted with Vapor remote controls with operating panels in each cab.

Sanding equipment is arranged to deliver sand ahead of the leading wheels of each truck in either direction of operation. The appropriate sand traps on both units are controlled by the manual or automatic operation of sanders on each unit.

The engineman's throttle, reverser, dynamic brake controller, air-brake valves, sanders and bell-ringer valves, warning-horn-valve pull cords, loadmeter, air-brake gages, miscellaneous control switches and indicating lights are conveniently arranged from the standpoint of operation as well as accessibility for maintenance.



The Southern's new bridge over the Tombigbee river, costing \$1,970,000, was placed in service on February 8, and is the first major railway structure over a navigable waterway to be built with federal aid

Southern Completes Large Lift Bridge

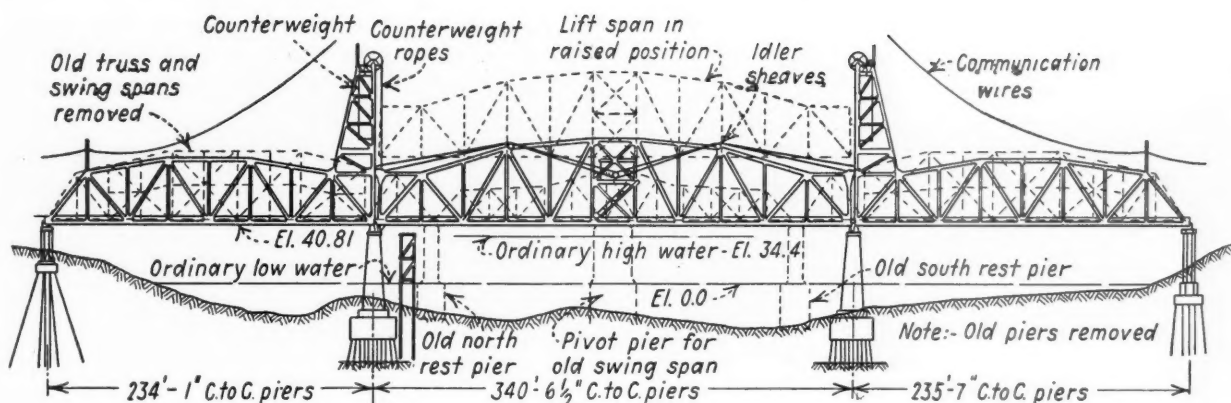
New structure spanning the Tombigbee river at Jackson, Ala., is first major railway span to be built under the Truman-Hobbs Act

The Southern has opened to service a new vertical-lift bridge over the Tombigbee river at Jackson, Ala., on its line between Selma, Ala., and Mobile. Costing almost \$2,000,000, the bridge was formally dedicated on February 15, by Ernest E. Norris, president of the road. At the end of a talk he made on this occasion, Mr. Norris gave a signal for the 335-ft. lift span to be lowered into position to permit passage of a 7,000-ton train drawn by a 6,000-hp. four-unit Diesel locomotive. (The bridge actually had been in use since February 8.)

Representative Sam Hobbs of Alabama joined Mr. Norris on this dedication of the first major railroad structure to be built under the terms of the Truman-Hobbs Act which the congressman had sponsored with

then-Senator Harry S. Truman. This act, passed in 1940 over President Roosevelt's veto, provides in practical effect that, where the federal government orders the alteration of an existing bridge in connection with navigation "improvements," the government will pay that part of the cost occasioned by its demands.

The new bridge replaces one erected in 1888. Comparative costs are interesting; the old bridge cost \$175,000, the new one \$1,790,000. The old bridge was built by the Mobile & Birmingham Railway under the supervision of Colonel (C.S.A.) William M. Patton, a well-known civil engineer of that time. It consisted of three through pin-connected truss spans — two fixed spans about 275 ft. long and one rim-bearing swing



The relative proportions of the new and old bridges are strikingly illustrated by this drawing in which the elevation of the original structure is shown by broken lines



The old approach trusses were dismantled after the floor system had been supported on falsework

drawspan about 260 ft. long — built largely of wrought iron and supported on five brick piers. Originally there were 6,900 feet of open-deck trestle at the south end of the bridge and 400 feet at the north end, but in recent years much of this has been replaced with fill and the balance converted to ballast-deck construction.

The superstructure was designed and built by the Phoenix Bridge Company for a loading approximately equivalent to Cooper's E-28. The compression members of the approach spans consisted of Phoenix columns; the tension members were eye-bars. The swing span was hand-operated. The spans contained about 690 tons of metal.

Stone for masonry work is very scarce in this section

and concrete construction was still in the elementary stages when the old bridge was built. Accordingly, the piers were built of brick obtained almost entirely from tearing down old and abandoned warehouses in Mobile. These bricks are said to have been brought over from England as ballast in sailing vessels. Although now perhaps 125 years old, they are still in excellent condition. The relatively small amount of concrete used in the old construction was made with oyster shells and broken brick as coarse aggregate, due also to the lack of stone.

Because of comparatively light traffic and the excellent physical condition of the structure, no important changes had been made to the old bridge, except that



Above—The falsework was also used while the new approach spans were being erected

some diagonals were added to stiffen the web system. From time to time some repairs were necessary because of damage done by river traffic, but essentially the bridge remained the same as it was when opened to traffic.

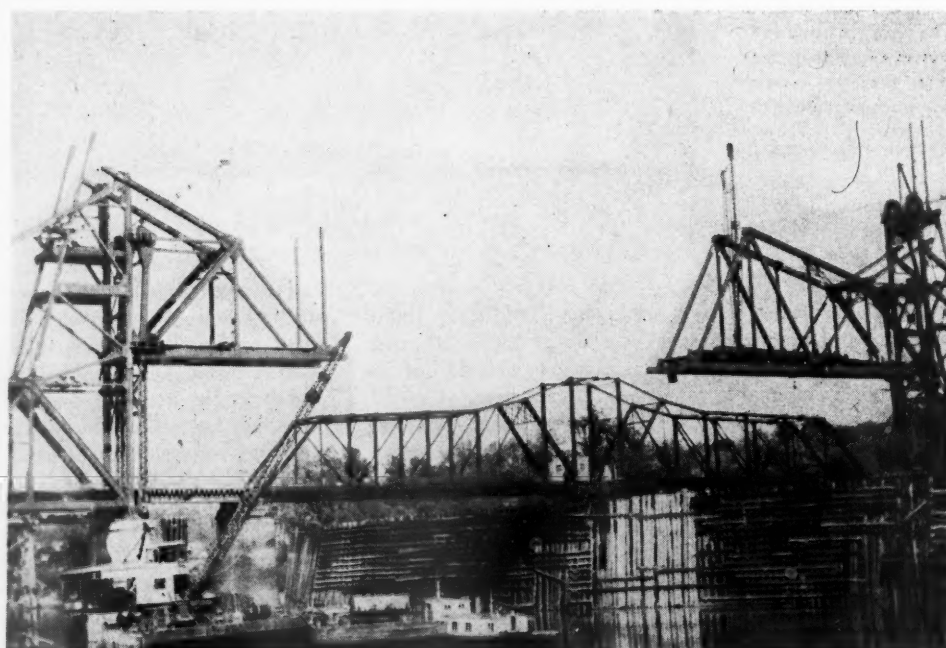
From its beginning the bridge was the cause of continuous complaints by river men that the navigation openings were inadequate. This long history of navigation difficulty is attributable largely to the relatively narrow (100-ft.) channels through the old swing span. At one time the Southern contemplated abandonment of the Selma-Mobile line because traffic did not appear to justify the expenditure required to replace the old structure with one satisfactory to the U. S. Army engineers.

Traffic Prospects Improved

More recently replacement of the structure became more desirable, with the increased traffic prospects in the territory, particularly at Mobile, where the Alabama State Docks are attracting a growing volume of import and export freight, especially imports of bulk commodities, including bauxite and iron ores.

On May 27, 1947, the secretary of war issued an order requiring the alteration of the bridge to provide a 300-ft. channel with a vertical clearance of 52 feet above normal high water. Plans were submitted by the railroad a few months later, calling for a three-span bridge with a central channel span of the vertical-lift type, to be built on the alignment of the existing structure.

While the plans were in process of being approved, negotiations were being carried on with the government to determine the division of cost between the government and the railway. The Truman-Hobbs Act requires that the railroad guarantee the cost of the project to the government, and in May, 1948, the Southern submitted a recommendation of award of contracts, together with the required guarantee. The total overall



Right—The lift span was erected by cantilevering it out from the towers in the clear above the old swing span

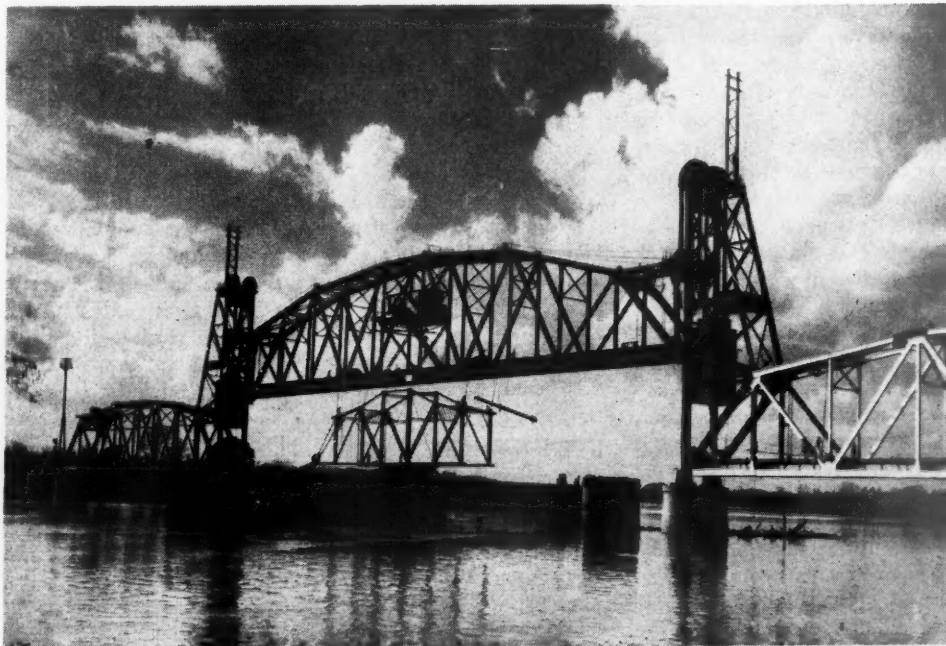
cost of the project was guaranteed to be not more than \$1,970,000 (including contingencies and work done by the railway), of which \$1,212,000 was to be paid by the government and \$758,000 by the railway. The government portion in no way represents a subsidy to the railroad. It is simply payment for the waterway improvements intended to facilitate navigation. The Southern's share represents the cost of the increased capacity of the bridge and other related improvements.

Description of Structure

In the bridge as completed all spans are through trusses of the Warren type with curved upper chords. The lift span is about 335 feet long while the flanking tower spans are about 233 feet long. The total length is 812 feet. A vertical clearance of 22 feet and a horizontal clearance of 15 feet is provided for trains, while the lift span provides, as stipulated by the government, a horizontal clearance for river traffic of 300 feet between fenders and a vertical clearance of 52 feet above ordinary high water when in the raised position. In the lowered position there is a clearance of 7 feet above ordinary high water.

All spans are fully riveted. Silicon steel was used in the trusses (except the verticals), the bottom laterals and the front columns of the towers. The dead load of the lift span is carried by wire ropes at its four corners, which pass over sheaves on the tops of the towers and connect to counterweights. Replacement of counterweight cables can be accomplished at any time by jacking up the counterweights from temporary beams supported on girders built into the longitudinal bracing of the towers. The rope connections are so made that any single rope can be replaced without removing any other rope.

The lift span is raised by operating ropes which are wound on drums geared to machinery at the center of the span. These ropes pass partly outside of the trusses and partly over the top chords to deflector sheaves at



Above—A special pier, one panel removed from the land end of each approach span, was used to facilitate the construction of the new end pier on the site of the former pier. One of these special piers is shown at the right in this view

Left—When the lift span was ready for service, the old swing span was dismantled piece by piece. Hoists on the swing span handled the old members to barges in the river

the four corners of the span and thence to connections at the tops and bottoms of the towers. Hand-operated drum devices with worm gears provide for taking up slack and for adjustment of rope tension to maintain the span in a horizontal plane during operation.

Castings, attached to the lift span and moving in guides on the tower columns, maintain the span in proper longitudinal and transverse position during movement. Centering castings at each end, attached to the centers of the end floorbeams and to the piers, center the span and track transversely as the span is lowered to its seat. Rail locks are provided in connection with special Conley rail joints at the ends of the lift span.

Control of Train Movements

Train movements are governed by interlocked home and approach signals, and all operating machinery, rail locks, and other controls are completely interlocked with the signal system.

Each tower has four columns. The front columns are vertical and supported on shoes common with the tower spans, while the rear columns are inclined and are supported on the top chords of the tower spans.

The new piers are of reinforced concrete supported on wide-flange steel bearing piles driven to bed rock. A fender to protect the north pier and a dolphin to protect the south pier, to be built of creosoted lumber and piling, will be constructed during the coming summer.

Designed for E-65 Loading

The entire structure was designed in accordance with the applicable specifications of the American Railway Engineering Association and for Cooper's E-65 loading. Thus, in terms of carrying capacity, it is nearly $2\frac{1}{2}$ times as strong as the old bridge and can carry any Southern locomotive and the heaviest cars without spacers. A speed restriction of 6 m.p.h., in effect on the old bridge for many years, will be removed when the new structure is fully completed.

The work of constructing the new bridge began on July 12, 1948. The construction program had to be scheduled carefully because of the extreme high water conditions that are encountered in this river. It was planned to construct the new channel piers during the summer and fall of 1948 and to build the end piers and the superstructure during the summer and fall of 1949. However, delay by the government in approving the award of contracts prevented the pier contractor — Hardaway Contracting Company, Columbus, Ga. — from going to work as soon as was intended, thereby setting back the schedule of the entire operation.

Excavation for the two new channel piers was carried on inside sheet-pile cofferdams and, when this was complete, the bearing piles were driven to rock. The cofferdams were then sealed under water and pumped out; the concrete pier shafts were constructed in the dry.

An interesting feature of the pier construction was the manner in which the new land piers were built on the sites of the old piers without interfering with traffic. In this work each approach span, at the land end, was carried on a temporary pier, one panel removed from the permanent pier. A beam span, attached to the end floorbeam of the approach truss, extended to the

end of the corresponding trestle in the bridge approach to give a clear working space in which to demolish the old end pier and build the new one.

Erection of Steelwork

The Virginia Bridge Company, Roanoke, Va., had the contract to fabricate and erect the superstructure. This work was started in June, 1949. To maintain traffic during the erection work, the old approach spans were supported on falsework, while the steelwork, except for the floor system, was dismantled. Temporary beam spans were placed to bridge the gaps between the old and new channel piers. The floor systems of the new approach spans were then constructed on falsework, as those of the old spans were removed, after which the truss members of these spans and the lift towers were erected.

The lift span was constructed by cantilevering it out from the towers on either side, this being done in the clear above the old swing span which remained in operation. The lift span was supported by temporary bents at each end and by special erection members, which were added to the tower system. When the lift span had been completed, with the track installed, the temporary bents and erection members were removed and the load was transferred to the towers.

Removal of the old swing span was the final step in the operation. It was cut into small pieces which were handled by hoists on the lift span overhead and lowered to barges in the river. Cables hung from the panel points of the lift span were used to steady the old span members during this operation.

The dismantling of the swing span required about 30 hours, during which no trains were operated. Dedication of the new bridge followed closely on the removal of this span.

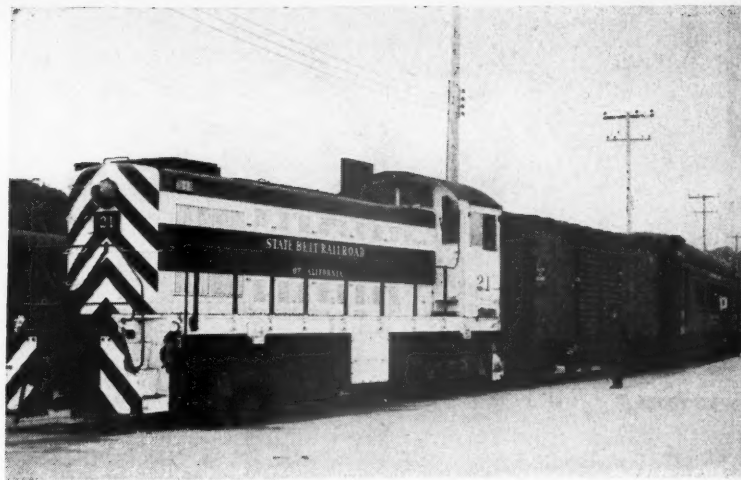
Provision for Another Approach Span

The river is eroding its south bank rather rapidly and it seems likely that it will some day run behind the south end pier of the bridge. For this reason provision was made in the design of this pier for the construction of a future approach span of the same length as the present south approach span. As protection against scour the steel sheet-pile cofferdam used in building this pier was driven down into the river bed after the pier had been completed.

The track on the new bridge consists of 100-lb. rail, laid on tie plates, with inner guard rails provided. The bridge ties are secured against longitudinal movement by clip angles fastened to the tops of the stringers. These clip angles occur at every other tie and alternate clip angles face in opposite directions. Every other tie in the three end panels of the lift span and in the three end panels of the fixed spans, adjacent to the lift span, is boxed in with rail anchors. Eight anchors were applied per rail length for the entire length of each trestle approach and 16 anchors per rail were applied on the 300 feet of track on the ground adjacent to each trestle.

This project was planned and executed under the general direction of J. B. Akers, chief engineer of the Southern, Washington, D. C., and W. H. Barnard, Jr., bridge engineer. M. A. Roose, resident engineer at Jackson, was in charge of work in the field.

Waterfront Switching Road Likes Diesels



Complete conversion from steam to Diesel-electric motive power has enabled the State Belt Railroad of California to reverse a general trend of rising costs and effect marked economies. The Belt—a state-owned San Francisco waterfront switching line—which handles about 90,000 cars a year, started replacing its seven steam locomotives in 1943. Conversion was completed in the autumn of 1945. Since that time the Belt has operated a fleet of six 1,000-hp. American Locomotive-General Electric Diesel-electric switching locomotives.

Comparative statistics prepared by J. B. Silva, superintendent, show significant savings since 1945.* In the sample steam years 1936 and 1940, costs of repairs, supplies and materials totaled \$60,483.67 and \$56,373.79, respectively. In the Diesel years 1947 and 1948—when traffic was much greater—such costs amounted to only \$45,643.21 and \$46,556.50 respectively.

The decrease is particularly noteworthy in view of the fact that the Belt's general rate of material costs rose 100 per cent between 1936 and 1948, and its wages and salary rate 98 per cent. In spite of this, in actual money, repairs, supplies and materials cost two cents less per locomotive mile in 1948 than in 1936—37 cents as compared to 39.

A total of 19,373 man-hours was required to keep the Belt's steam fleet in repair in 1940. In 1946, however, with the Diesel fleet, this figure was cut to 13,690. In the succeeding years, shop experience, which has made for constantly increasing efficiency all along the line, further reduced the hours to 11,350 in 1947 and 11,632 in 1948.

Good Shop Work Saves

While the Belt railroad's 1948 wages and salary rate was 47 per cent above 1940, the actual cost of wages and salaries for repairs was up only a little more than 3½ per cent—\$22,587.71 for 1940, compared to \$23,427 for 1948.

A skillful shop crew is credited by Mr. Silva with a large part in the reduction of repair costs. Their rate of pay is higher than that of other railroad shop crews in the area. "We feel that nobody has any better mechanics than we do." All of the crew, which consists of four machinists, a welder, a boilermaker and two

helpers, were originally trained in steam. The men have learned about Diesels from material furnished by Alco and General Electric, and from actual experience.

In the Belt's shop, converted from its roundhouse mainly by the addition of a drop table and a 7½-ton crane, improved maintenance and repair methods are constantly being developed. An extra truck is kept on hand and in repair, resulting in a saving of both time and labor, since a faulty truck can be removed and replaced quickly, allowing the locomotive to return to service within four hours. The faulty truck is then disassembled and overhauled, to be ready when needed.

About once every second year a semi-general overhaul is given each locomotive. Pistons are pulled, connecting-rod bearings checked, and valves ground. Defective bearings are renewed in the shop. Recently two traction motors were reconditioned.

By keeping equipment in good repair, maximum efficiency and economy are achieved, Mr. Silva feels. Although the manufacturer recommends thorough repairs at the end of 30,000 hours of service, the Belt's locomotives have to date passed this point. They are expected to exceed the 50,000 hour mark before requiring general overhaul.

Fuel oil has been, of course, a factor in the Belt's decrease in costs. While in the steam years 1936 and 1940 the road's fuel oil bill was \$27,392.16 (1,174,871 gal.) and \$21,057.22 (1,087,320 gal.), respectively, its 1947 and 1948 Diesel oil costs were only \$11,072.79 (127,648 gal.) and \$11,174.13 (104,157 gal.).

The first Diesel year showed an increase of approximately 54 per cent in the cost of lubricants above 1936, but shop experience has since brought the figure down. In that first year crank cases were drained every 3,000 miles. Monthly viscosity tests later showed, however, that draining is necessary only once every 5,000 miles. According to W. E. Shafer, master mechanic, a maximum of 200 gallons of make-up oil is required between drainings.

Stated in terms of costs, lubricants in 1936 and 1940 stood at \$647 and \$848. In 1946, first full year of Diesel-electric operation, the figure rose to \$1,181.05. Subsequently, however, in 1947 and 1948, it was reduced to \$869.33 and \$521.38, which, in the face of rising prices, registers a marked economy in the amount actually used.

Mr. Silva reports the Belt entirely satisfied with its Diesel-electric equipment, and constantly challenged by possibilities to reduce costs further through new shop practices.

*Total number of engine shifts for the years mentioned in the computations are as follows: 3,197 in 1936; 3,182 in 1940; 3,444 in 1946; 3,209 in 1947; 2,584 in 1948.



The "More Power to America" Special

General Electric's 10-car "display kit" presents 2,000 products, processes and techniques for modernization of power generation, transmission, distribution and use in transportation and industry

The "More Power to America Special" was launched on a nationwide tour by the General Electric Company at New York when it was inspected by invited representatives of electric utilities and manufacturing industries, by transportation officials, by representatives of the armed services, and by New York City officials beginning on April 26. This is believed to be the first time all the apparatus for producing, distributing and utilizing electric power has been displayed in a single series of related exhibits, and the first time a display of this magnitude has been completely installed in a train. Over 2,000 different products, processes and techniques are displayed in eight of the ten cars, many of them in operating exhibits.

The train is a project of the company's Apparatus Department and is an important phase of the company's "More Power to America" program launched in 1944. It will visit approximately 150 industrial centers during 1950 and 1951, where it will be inspected by parties similar to those which saw it in New York. It will not be open to the general public.

The train and its objectives were described in detail by company executives at a luncheon for several hundred representatives of the business and daily press at the Hotel Biltmore on April 24. Henry V. Erben, vice-president and general manager of the Apparatus Department, said that the company was inspired to launch the exhibit train not alone because of a "natural desire to sell more General Electric products," but for "far more important reasons having to do with our

national economy and industrial well-being." The country, he said, has doubled its use of electricity every 11 years for several decades. "Electric utilities," he added, "have doubled and redoubled their capacity to keep up with the requirements caused by this load growth. And there is a continuing job ahead in modernizing and expanding their generating capacity to take care of future needs."

Pointing out that production of durable equipment for modernization and expansion of industry dropped from \$20.7 billion in 1948 to \$19.7 billion in 1949, Mr. Erben warned that "it is high time all of us in American industry started working to reverse the trend." Since the war, he said, G.E. has put almost half a billion dollars in new plants and the rearrangement and modernization of old facilities. "We are spending our dollars as evidence of our faith in the future, and through this train we hope to encourage others to do the same," he declared.

Chester H. Lang, vice-president in charge of apparatus sales, characterized the "More Power to America Special" as a unique and important undertaking in industrial marketing, which "symbolizes—even epitomizes—the modern concept of industrial selling: informative, challenging, progressive. Your modern industrial salesman is not so much a peddler as a buyer's counsel. If he's in business for keeps—and General Electric is—he will see to it that every sale results in a profit both for the buyer and the seller.

"This is a deliberately commercial venture—a bold

and original investment in sales promotion." Salesmanship, he said, "keeps goods flowing, money moving, plants running, people employed and eating."

He spoke of the great "price support" programs, "production control" programs, "cradle-to-the-grave" programs, "and whatever else the teeming brains of our legislators can devise." These bureaucratic control plans, he said, "do not create wealth; they simply disperse it." American business, he said, must reassert itself. "We must again turn the minds of our people to the creation of wealth, to the modernization of our industrial machine, to the building of a more productive America."

In explaining the purpose of the train, J. Stanford Smith, Manager of the Apparatus Department's advertising and sales-promotion division, said it is to see that 2,000 of General Electric's finest mid-century ideas are put to work for a more productive America. As any Fuller brush man knows, he said, the only way for a company with a better mouse trap or brush or turbine to sell them is to beat paths to its customers' doors.

"Vote of Confidence"

"In our case, however," said he, "a salesman can't simply toss a gas turbine or a steel-mill drive in the back of his car when he goes to call. Just to show a limited representation of his wares, the G.E. apparatus salesman needs a display kit 9 ft. wide and a quarter mile long. He has the display kit now, and to haul it around, we've turned to the only transportation agency in the world capable of handling such an assignment—the American railroads. Here are steel tracks, a well established network of paths to all the customers we want to reach. In passing, we might note that the 'More Power to America' special is General Electric's vote of confidence in the future of the American railroads."

Clayton P. Fisher, Jr., manager of the apparatus-exhibit-train division, explained that many problems had to be solved in installing a display of this kind in a "tunnel 9½ ft. wide and 1,000 ft. long." The exhibit material, he said, "was deliberately designed to put our visitors in the position of an actual user of the equipment. The visitor can operate a Diesel-electric locomotive, for example, and model switchers and cars will follow his control."

The train will be hauled by a 4,500-hp., two-unit American Locomotive-General Electric Diesel-electric locomotive, itself one of the exhibits. The cars were built by the Pullman-Standard Car Manufacturing Company at Worcester, Mass. They are built to Chicago, Rock Island & Pacific specifications, to which road they will be sold on completion of the tour. One car is fitted with checking and wardrobe facilities, and a second is furnished as an office and reception area. The exhibits in the eight cars have been grouped in 11 sections.

Advance designs of steam, mercury and gas turbines are graphically represented in the power generation, distribution and transmission section, with emphasis on their proper application and relative efficiencies. One of the wall displays shows the tremendous increase in turbine efficiency since 1900—from 6.6 lb. of fuel per kw.-hr. to 1.3 lb. today. One of the largest outdoor substations now in operation is visualized in murals and models. Among other exhibits in this section is a power



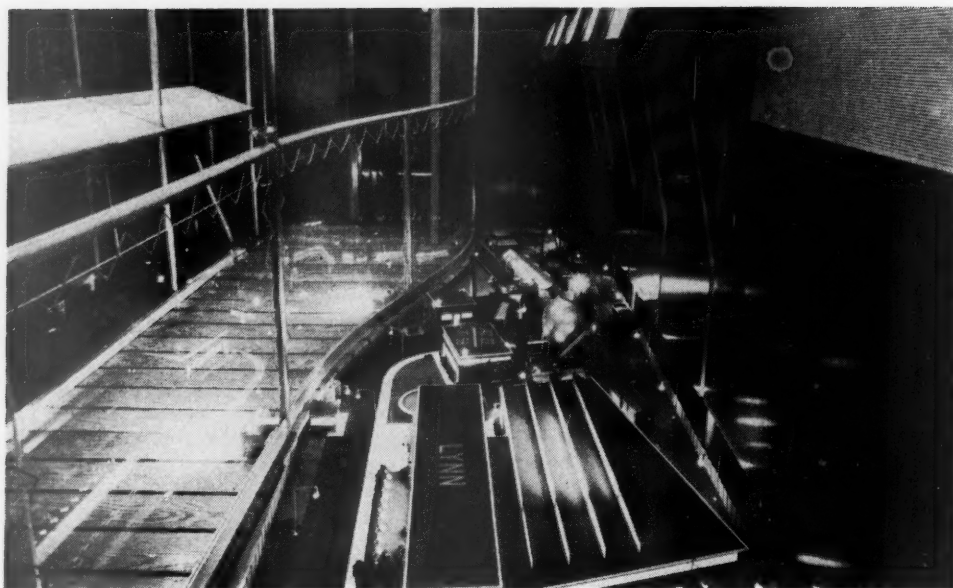
G. W. Wilson (kneeling), manager of the locomotive and car equipment divisions, and C. P. Fisher, Jr., manager of the exhibit train division, inspect the G. E. Diesel-driven undercar power plant



Above—Included in the welding display is a complete line of arc welding equipment and accessories, samples of various welds, and resistance-welding control items. Below—C. H. Lang, vice-president in charge of sales for the Apparatus Department, working controls inside the locomotive cab which operate a miniature model switcher and cars on the industrial track system (foreground) laid out directly in front of the cab. This is part of the materials-handling exhibit.



A scale model of a properly illuminated factory area, one of the major exhibits in the industrial lighting section



transformer with forced oil-air cooling which weighs about 70 per cent less than self-cooled transformers of similar rating.

Motors and control devices, many of them functioning in a series of operating drive systems, are displayed in the drives and control section.

How modern electrically operated equipment, properly applied, can effect substantial savings in material-handling expense is explained in a series of exhibits comprising the materials-handling section. A major exhibit in this section emphasizes the dollar savings possible through the use of Diesel-electric locomotives for industrial railroading.

Dramatizations of the latest welding cost-reduction techniques, samples of various welds, a complete line of arc-welding equipment and accessories and resistance welding control items are displayed in the welding section.

How electric heat can be used by industry to increase production, reduce costs, and improve product quality is visualized in the industrial heating section.

Of the renewal parts kits exhibited in the renewal parts and service shops section, one type, consisting of three packaged fractional-horsepower motor starting switches, can be used for the replacement of more than 300 different starting switches now in use. Photographs show how maintenance and repair work is performed in typical G.E. shops.

How industrial lighting pays off in terms of increased production protection, safety, efficiency, convenience and prestige is explained by the exhibit in the industrial lighting section. Displayed here are various types of luminaries and floodlights for outdoor applications and complete lines of incandescent and fluorescent lamps and accessories for indoor industrial use.

The components-for-industry section comprises a series of displays showing how hundreds of electrical components, properly applied, can reduce costs, step up production, and improve quality throughout industry. In the measurements section are arrayed more than 250 instruments designed to perform scores of services

throughout industry, aboard ships, trains and aircraft, and in laboratories and research centers. Emphasis is on the importance of accurate measurements in every phase of industrial activity.

Seven ways to further community progress and development are described by the exhibits of the civic improvement section. Visualized are different types of electrical equipment for lighting business streets and traffic arteries; controlling vehicular and pedestrian traffic; reducing the smoke nuisance to a minimum; illuminating sports fields and recreation areas; disposing of sewage and operating waterworks; modernizing community transit systems; and lighting airport runways.

Some of the major contributions of the electrical industry to national security are portrayed in displays related to atomic power, jet engines, guided rockets, shipboard equipment for the Navy and Merchant Marine, rain- and snow-making techniques, and other significant advances closely associated with General Electric research and development.

The Locomotive

A two-unit Diesel-electric road locomotive rated at 4,500 hp. will haul the train. Each unit is powered with a 16-cylinder V-type turbosupercharged Diesel engine which is rated at 2,250 hp. Generators, motors and control are G.E. The increase in rating from 2,000 to 2,250 hp. per locomotive unit has been effected by an increase in air pressure from the supercharger and an increase in engine speed. Electrical equipment has also been revised in accordance with this change in rating. The axles of the six-wheel trucks have Timken roller bearings.

On the locomotive units are Vapor-Clarkson steam generators with a combined total capacity of 3,000 lb. of steam per hour. The locomotive brakes are Westinghouse 24 RL with speed governor, electro-pneumatic straight-air, and 3CDB compressor. The locomotive is also equipped with dynamic brakes. There is a complete

accouterment of automatic train control and cab signal equipment so that it can operate over any mainline in the United States.

The locomotive weighs 315 tons. It is 129 ft. 2 in. long and has an overall wheel base of 99 ft. 4 in. The two units carry 2,400 gal. of fuel oil, 460 gal. of lubricating oil, and 3,200 gal. of water for steam heating.

The Exhibit Cars

The ten new cars which house the exhibits, the reception section, and the checking and wardrobe facilities are of Pullman-Standard welded truss type construction, the body frames and underframes of which are of low-alloy high-strength steel, with stainless-steel side and end sheathing and outside roof sheets. Fiberglass insulation is applied to the sides, ends, and roofs. The cars were delivered without top floors in order that reinforcing could be applied as needed for the attachment of the exhibits. In arranging these cars was taken to maintain a suitable center of gravity of a car as a whole and attachments were designed for adequate shock resistance.

The windows are Libbey-Owens-Ford Thermopane double-glazed sealed units with 1/4-in. laminated inner panes and 1/4-in. heat-resisting outside panes. Inasmuch as the exhibits are arranged along the sides of the cars, the insides of the windows are given an opaque coating which will be removed when the exhibition tour is completed. The window sills are of Texolite, a new application of this G.E. laminated plastic.

Mounted under each car is a Diesel-engine-driven a.c. power plant rated at 30 kw. which provides power for lighting, air conditioning, most of the train heating, and for the numerous operating exhibits on board. It has sufficient clearance to allow unrestricted movement on any American railroad. Maintenance is facilitated by a hinged mounting arrangement which permits the power plant to be swung from its housing and out from beneath the car. Each plant consists of a four-cycle Buda Diesel engine and an alternator which generates 220-volt, 3-phase, 60-cycle power. The exciter is an ultra

high-speed amplidyne generator. Thermostatic control of the motor-driven radiator blower maintains the engine water temperature between desired limits.

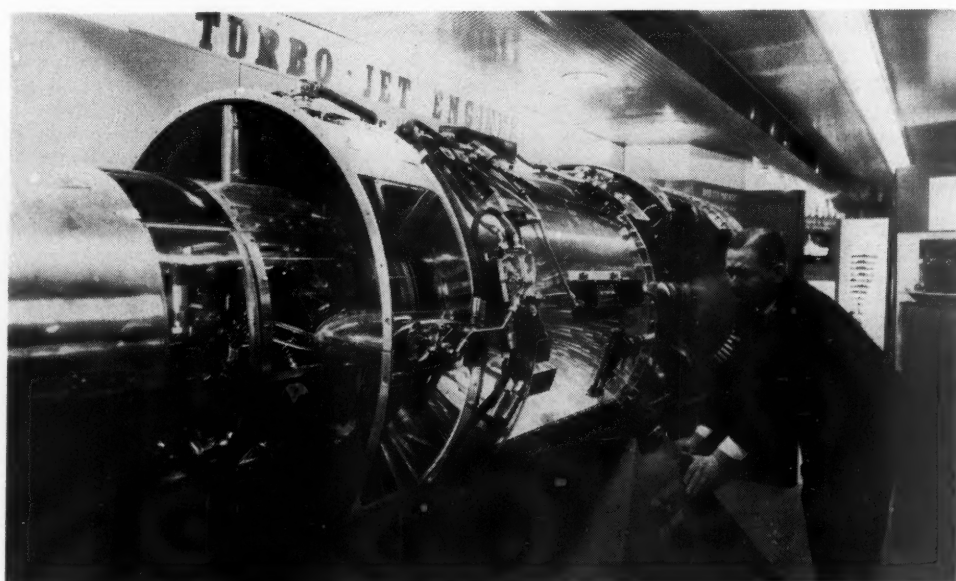
The power plants have been designed to operate in parallel so that the entire train is train-lined to assure maximum reliability. The alternators are especially designed to eliminate the need for synchronizing equipment to parallel the sets. Four additional engine-generator units are installed in a section of the baggage-dormitory car accompanying the train to supply additional power required by some of the exhibits.

The total weight of the Diesel-driven equipment is said to be less than that of the conventional axle-driven generator with its attendant batteries, cable, control and drive unit. The chief advantage is the elimination of the load on the locomotive produced by axle-driven generators. There is the supply of potential heat both in the engine jacket water and engine exhaust in addition to about 20 kw. of electric heat. With suitable car heating equipment a recovery of about 18 kw. of exhaust heat and 25 kw. of waste heat from the jacket water is possible, thereby making about 214,000 B.t.u. total heat available for heating a car.

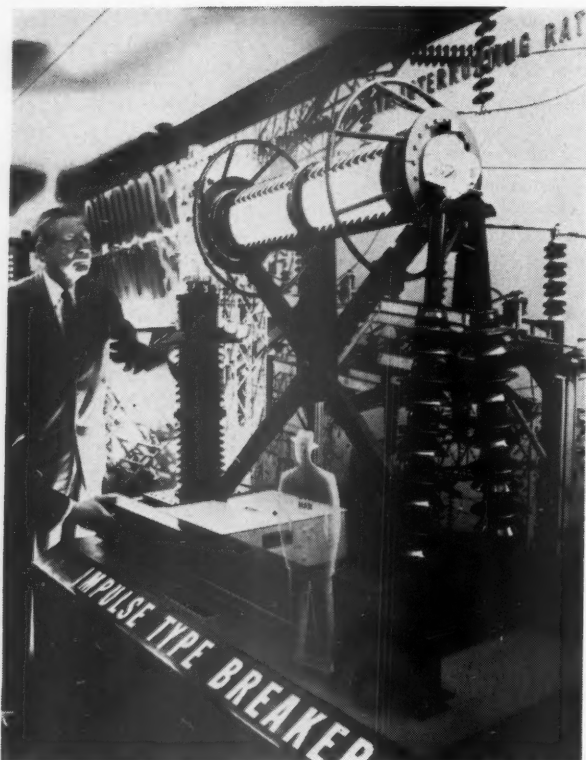
The heating equipment on all cars, except the office-reception car, includes Vapor zone-control floor-heat radiators along the sides and G.E. Calrod electric heaters in the ceiling. These are supplied with 18 kw. of electric heat which minimizes the need for the use of steam. It is anticipated that little, if any, steam heat will be required throughout the tour.

A supersensitive electronic system of controls automatically regulates the temperature and humidity in the combination office and reception car. Developed by the Minneapolis-Honeywell Regulator Company, the system is designed to adjust to one tenth of one degree of temperature change and one half of one per cent change in humidity. Changeover from heating to air conditioning is automatic, providing comfortable temperature regardless of changing outside conditions.

Electronic thermostats installed against the outside skin of the coach detect changes in outdoor conditions and make compensating adjustments inside before the



H. P. Bish, manager of the aircraft, federal and marine divisions of the Apparatus Department, inspects a full-size cutaway model of the J-47 turbojet engine. This is one of several displays in the national security section



H. V. Erben, vice-president and general manager of the Apparatus Department, inspects a model of a huge 230-kw. impulse breaker in the power generation section

change is felt within. Inside the car the system employs the principle of radiant heating from side-wall panels, controlled by a window thermostat which adjusts for the sun. This heating works in unison with an overhead duct system supplying warm air. A car thermostat controls the heating valve on the overhead coil so as to supply sufficient heat to maintain car temperatures.

The sensing element in the system consists of temperature-sensitive resistance wire, which is wound on an open plastic spool. The wire is treated with a chemical compound sensitive to moisture, and it reacts to moisture change in controlling humidity.

The electronic system is operated by a single on-off switch. This relieves the train personnel of any responsibility for temperature adjustments.

The Safety air-conditioning system includes an a.c. motor-driven compressor, with full-flooded evaporative type condensers. The motors operate at constant speed. The cooling is modulated by automatically unloading the compressor cylinders in sequence, thereby providing 25, 50, 75 and/or 100 per cent of full capacity as is needed.

The cars are carried on four-wheel Commonwealth trucks with alloy cast-steel frames and bolsters, all-coil springs, bolster anchors and shock absorbers. Journals are 5½ in. by 10 in. Side bearings are Drews Evertite Type F. The trucks on four cars are fitted with Timken roller bearings; on three cars, with Fafnir-Waugh bearings and on three, with Hyatt bearings.

Air brakes are Westinghouse HSC type with electro-

PARTIAL LIST OF MATERIALS AND EQUIPMENT USED IN THE CONSTRUCTION OF THE CARS FOR THE GENERAL ELECTRIC "MORE POWER TO AMERICA SPECIAL"

Truck frames	General Steel Castings Corp., Granite City, Ill.
Truck springs	American Locomotive Co., Railway Steel Spring Div., New York
Wheels, axles	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Roller bearings and boxes	(3) Fafnir-Waugh Bearings Div., Waugh Equipment Co., New York (3) Hyatt Bearings Div., General Motors Corp., Harrison, N. J. (4) Timken Roller Bearing Co., Canton, Ohio
Buffer and draft gear	Waugh Equipment Co., New York
Couplers and uncoupling device	Symington-Gould Corp., Depew, N. Y.
Yokes	National Malleable & Steel Castings Co., Cleveland, Ohio
Swing hanger pins and bushings	Ex-Cell-O Corp., Detroit, Mich.
Side bearings	American Steel Foundries, Chicago
Shock absorbers	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo, N. Y.
Upper buffer springs	Standard Railway Equipment Mfg. Co., Hammond, Ind.
Locking center pins	W. H. Miner, Inc., Chicago
Fabreeka pads at center plate, body side bearing, top equalizer coil spring, journal box, center stem sleeves, and side stem wear plates; control, relay, and magnet-valve mounting washers	Fabreeka Products Co., Boston, Mass.
Spline bushings	Hyatt Bearings Div., General Motors Corp., Harrison, N. J.
Bolster stop	United States Rubber Co., New York
Air brakes; water raising equipment	Westinghouse Air Brake Co., Wilmerding, Pa.
Hand brakes	National Brake Co., New York
Clasp brakes	American Steel Foundries, Chicago
Brake shoes	American Brake Shoe Co., New York
Undercar power plant; transformer; switchboards; cable and wire; lamps	General Electric Co., Schenectady, N. Y.
Batteries	Electric Storage Battery Co., Philadelphia, Pa.
Standby and battery-charging receptacles	Pyle-National Co., Chicago
Lighting fixtures	Luminator, Inc., Chicago
Air-conditioning equipment	Safety Car Heating & Lighting Co., New York
Air grills	Tuttle & Baily, Inc., New Britain, Conn.
Multi-Vent ceiling panels	Pyle-National Co., Chicago
Heat and train-line specialties	Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Vapor Heating Corp., Chicago
Steam connectors	Barco Manufacturing Co., Chicago
Pipe covering	Johns-Manville, New York
Train-line connectors	Pyle-National Co., Chicago
Metal-faced plywood	Met-L-Wood Corp., Chicago
Insulation	Gustin-Bacon Mfg. Co., Kansas City, Mo.
Mirror glass	Alto Manufacturing Co., Chicago
End door operators	National Pneumatic Co., Rahway, N. J.
Window units	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Vestibule curtains	Adams & Westlake Co., Chicago
End door locks	Dayton Manufacturing Co., Dayton, Ohio
Window sills	General Electric Co., Schenectady, N. Y.
Water tanks	Scaife Co., Oakmont, Pa.
Washstands; dental lavatories	Crane Co., Chicago
Hoppers	Duner Co., Chicago
Soap dispensers; disinfectants	West Disinfecting Co., Long Island City, N. Y.
Paper holders and cabinets	International Cellucotton Products Co., Chicago Scott Paper Co., Chester, Pa.
Water coolers	General Electric Co., Schenectady, N. Y.
Water filters	Tested Appliance Co., Chicago
Drinking-cup dispensers	U. S. Envelope Co., Worcester, Mass.
Fire extinguishers	Pyrene Manufacturing Co., Newark, N. J.

pneumatic feature and speed-governor control. Truck clasp brakes are Simplex unit cylinder type. The draft gears are Waughmat. Couplers are Symington-Gould Type H-81 tight lock, with Type H-15A rotary lock lifters and National Malleable & Steel Castings Type Y-65 yokes.

"GLIDING INTO STATE SOCIALISM"

Right now and for some years we have been in the midst of inflation, but who doesn't like a little inflation? On every side there are subsidies, but who believes in private enterprise enough to refuse a little subsidy for himself? We are gliding into state socialism, which is the easy and alluring path from freedom to absolutism. This path is lined with attractive signs and deceptive words that do not mean what they say; that are meant to disguise and conceal, and to fool the unwary and gullible.

What, you may ask, have the railroads to do with all this? I believe it is the railroads—perhaps more particularly the railroads in the east—whose situation suggests some of the processes which those interested in state socialism find it advantageous to use.

Any business to continue to exist must be economically sound. Any business to be sound must earn not only its operating and maintenance costs, but also its interest and depreciation and its taxes—social security, income, and ad valorem. That the railroad business (which is the most overtaxed and overregulated industry in the United States) does this, is an outstanding tribute to the men who operate the American railroads. We are not opposed to taxes, but they should be equitable and should not be used to subsidize—particularly our competitors. We are not opposed to regulation, but it should be by law and not by emotion. . . .

If it was important in the past to protect the public and the railroads by regulation, it is equally important now to protect them from regulation. Regulation is gradually ceasing to be what it was intended to be. It is becoming a "supermanagement" (a form of centralized state operation, if you please) enforcing its own business judgment—or political judgment—upon railroad rates and practices, gradually undermining the capacity of the railroads to provide the quality of transportation under just and reasonable rates that managerial initiative, unhampered, can provide. The whole approach to the problem of the after-war economy of the railroads has been devious. Procedural delay on the part of the regulatory authorities has cost the railroads vast sums of money . . . yet prompt action, on the basis of the obvious, would have been beneficial all around. It would have meant no higher rates. It would have improved the economy of the railroads. It would have hastened the decrease in rates that always follows reconstruction after a period of economic upheaval and inflation such as we have been going through.

If regulation under the law is important to the railroads, it is even more important to the shippers and to the public that regulation shall adjust itself to the law. Today's paradox is that while without regulation we would have had government ownership years ago, now—as a result of regulation itself—government ownership is being made to seem inevitable.

I mentioned subsidy. This is another big factor in the transportation situation that has its significance to the thoughtful and responsible businessman who sees beyond his day's work. It is almost impossible to find any large segment of the voting public today that does not enjoy some form of subsidy. Subsidy is gradually extending itself into all the ramifications of business by one means or another. It is one of the insidious influences that is attacking the self-reliance of all the people. The upper and nether millstones between which the railroads are caught are the services which are performed at less than cost and the services which are performed at a profit but which are subject to inroads by subsidized competition. It is within these limits of the economy of the railroads that whether we shall have private ownership or the alternative of socialization will be determined.

The air lines should exist without subsidy. Now they enjoy tax-built tax-free airports, tax-maintained airways, and a big mail subsidy—many millions a year. . . . The Penn-

sylvania and the New York Central together, in 1949, lost about \$40 million in handling United States mail—enough to pay the air mail subsidy. The railroads, in other words, subsidize the government and the government subsidizes our competition. Then, under subsidy, our competitors charge less for their service and the railroads lose business.

The railroads want no subsidy. A rail subsidy could only mean government control. Government control means government ownership, and that is Socialism!

The railroads have a constructive problem of their own. It is to reduce the cost of their production and thus to reduce the cost of their service. The upper limit of rail rates is fixed, not only by competition but more so by another condition—the decentralization of industry to avoid transportation charges. The railroads produce nothing but service. They grew great through providing mass transportation in volume at low rates. Their future usefulness depends on the same thing. . . .

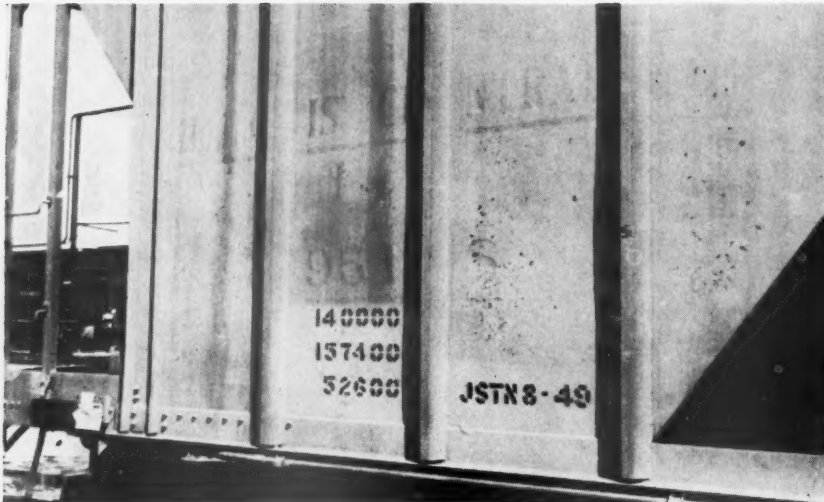
Unfortunately, the processes of rate regulation do not operate on a business basis. Regulation reflects the emotion of businessmen and their representatives—shippers, producers, traffic leagues, chambers of commerce; and, while all these men in business make their own prices on a business basis, they object to the railroads pricing their services on the same basis. Each and every one of these groups or sections of the country wish to maintain some advantage over other groups or sections through their rate structure. So any attempt on the part of the railroads to make their rates on a business basis, here in the midst of the only free enterprise country of the world, makes slow progress! The only approach available is the one we have taken—to raise all rates to get up the unprofitable and then eventually bring down the ones that are too high—and, through changes of practices or methods, keep them profitable.

The railroads are going to have to spend as many or even more billions after World War II as they did after World War I. We will need greater capacity motive power; long trains of large capacity, lightweight high earning-capacity cars, with relatively low rates for the long haul. Therein lies our salvation and industry's salvation, and we need the help of each other if we are to make progress and preserve a free economy. The country has doubled in size since any additional railroads have been built. The people consume more transportation every day. With the constant growth of transportation we feel confident that to take the place of that unprofitable business which the railroads lose, there will come more profitable business. It will come if the country continues to progress, and we—the railroads—will be restored to prosperity and will perform to the benefit of the people as a whole if we are permitted to move in the free economy in which you all will live and have your business being. If we don't get that opportunity, then we will move right along with the socialistic drift of the day and become a creature of the state, supported by additional taxation which you will have to pay—if, of course, you manage to stay free yourselves! . . .

The evils of subsidy are the taxes it requires. They help the drift of the country toward the socialistic state, and the fact that the railroads and not your business may be involved is no lasting consolation to you. The country will go as the railroads go. And it is in your own interest to see that the railroads continue as free enterprise under sensible regulation, for if they do not survive—no other business will. We want no government subsidy, no government aid. No government is strong enough for everybody to lean on, nor rich enough for everybody to live on. Within the limits of the Sherman Anti-Trust Act and the Interstate Commerce Act, we want only economic freedom to develop and prosper to operate in the best interests of the free industry and free people that we serve.

—M. W. Clement, chairman of the Pennsylvania, in an address to the San Francisco, Cal., Chamber of Commerce.

New and Improved Products of the Manufacturers



Illinois Central covered hopper car No. 79518 painted with Sherwin-Williams Carclad three-coat system in September, 1946. Sledge hammers have been used to loosen the cargo with little effect on the finish

CORROSION-RESISTANT FREIGHT-CAR FINISH

An acid- and alkali-resistant finish for covered hopper, tank, and refrigerator cars has been introduced which will take repeated scrubbing and washing with strong cleaning solutions.

In contrast to the relatively short life and rapidly diminishing appearance of covered hopper equipment with some conventional materials, Carclad, announced by the Sherwin-Williams Company, Cleveland 1, Ohio, has recently completed three years of hopper-car service in a trial made by the Illinois Central.

A covered hopper car was painted with Carclad three-coat system in September, 1946. Inspected recently after three years of continuous service in conveying cement-soda ash, corrosion was practically nonexistent. Exceptional film hardness and toughness was retained even where sledge hammers were used to break loose the load.

This product is said to be resistant to acids, soda ash, sulphur, alkalis, phosphate, common salt, cement, gasoline, kerosene, sour crude oil and alcohols. Concentrated acids such as nitric, sulphuric and hydrochloric affect it to some extent but not as readily as conventional finishes. Aromatic hydrocarbons, ketones, esters and some chlorinated hydrocarbons will soften the finish, but as long as no abrasion occurs the film is reported to harden to its original state when allowed to dry.

Because it dries with the speed of lacquer, Carclad provides a one-day finish-

ing system to speed up finishing schedules on steel freight equipment. Succeeding coats can be applied in 30 minutes under normal conditions. The initial film is tougher, gloss and color are retained longer, dirt retention is reduced and better protection and appearance are insured for longer periods of service, according to the manufacturer.

"DUMP IT" TRUCK-BODY HOIST

Gar Wood Industries, Inc., St. Paul Division, Minneapolis, Minn., is introducing into the railroad field its hydraulic

truck-body hoist, known as the Dump It, which can be applied to any truck with a fixed body, whether the truck is already in service or not, to convert it into a dump body.

Essentially, the Dump It hoist embodies a full-length steel channel sub-frame, a hydraulic hoist mechanism, two lifting arms, a steel-channel body frame, a power take-off, and cab controls. The subframe is mounted on the truck chassis and supports the hydraulic hoist mechanism near its midpoint. The body frame supports the platform of the truck body and is connected to the rear of the sub-frame channels by malleable iron hinges. The lifting arms, actuated by the piston of the hydraulic mechanism, cause the body platform to be tilted to the dumping position.

The Dump It line of hoist is made in four models: Colt, Pony, Mustang and Stallion. All models are furnished with an automatic safety lock which holds the body in the "down" position until the operator pulls a lever to release it. A safety overload valve is standard equipment on the hydraulic mechanism of all models and protects the hoist and truck from damage if too great a lift is attempted.

WHEEL FLANGE LUBRICATING RODS

The National Carbon Company, 30 E. 42nd St., New York 17, has announced its AWE grade graphite wheel-flange lubricating rods for reducing the flange wear of Diesel-electric and steam locomotive drive wheels. Two sizes $\frac{3}{4}$ in. diameter by 12 in. long, and 1 in. diameter by 12 in. long, have been developed. These rods can be used in several makes of rod holders now in service as well as in simple holders of the gen-



Truck fitted with Dump It hoist handling snow on the Chicago & North Western

eral type, illustrated, which can be fabricated readily in railroad shops.

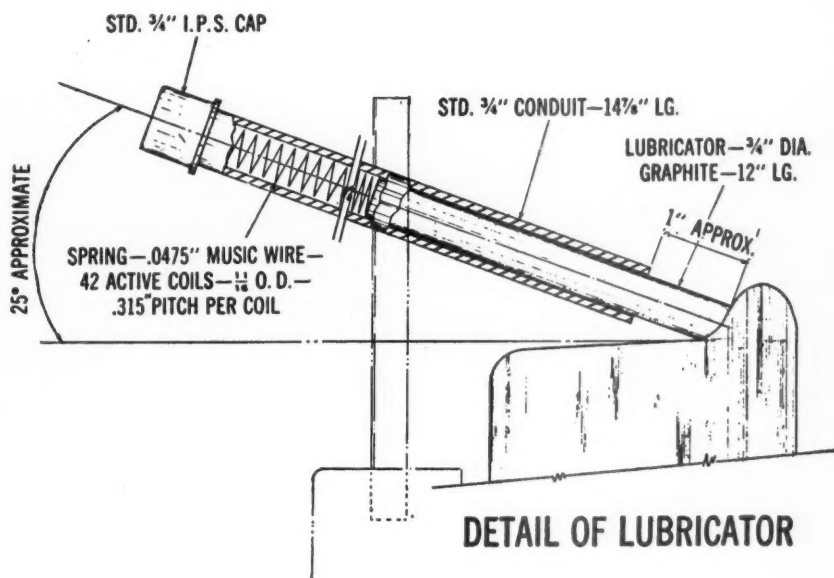
These lubricating rods deposit an adhering film of graphite at the point of high friction and wear and at that point only. The selected grade of material is said to eliminate many of the problems of existing flange lubricating equipment. The lubricated area will not become sticky and pick up sand or other abrasive material.

In commercial application these rods have increased mileage per flange 100 per cent over unlubricated equipment, giving a net savings of about 30 per cent in wheel maintenance.

CONTINUOUS WELD PIPE

Yoloy steel pipe, manufactured for 15 years as seamless pipe by the Youngstown Sheet & Tube Co., Youngstown, Ohio, is now available as continuous weld pipe. Yoloy pipe is said to be particularly suited where light construction and resistance to corrosion and abrasion are important.

Yoloy steel is a low alloy nickel-copper steel which is reported four to six times more resistant to atmospheric corrosion than regular carbon steels. Its resistance to other corrosive elements is also high, as indicated by the several years of service given by Yoloy pipe as brine lines in a salt plant. Other pipe previously used



in these lines required replacement three or four times a year.

In addition to the advantages already mentioned, it is said that Yoloy continuous weld pipe welds easily, bends and fabricates readily, has high tensile strength and high resistance to shock and vibration.

PYRENE GAS-CHARGED FIRE EXTINGUISHERS

Pyrene Manufacturing Company, Newark, N. J., has developed a new cartridge-operated, water-type fire extinguisher with a welded stainless steel shell which, it is claimed, has numerous advantages over the riveted copper, soda-acid type long used in hotels, offices, factories and institutions. The new extinguisher eliminates the cost and nuisance of annual recharging which was necessary with the soda-acid extinguisher. Its carbon dioxide pressure cartridge need be replaced and the water replenished only if the extinguisher is discharged.

When the extinguisher is turned upside down and struck on the floor, the gas, which is contained in a cartridge fitted into the extinguisher cap, is released inside gradually. As a result a steady 40-ft. stream may be easily directed at the fire from a safe distance. The extinguisher weighs 5 lb. less than the old model and is reported to be easier to carry and operate, yet stronger. It is tested to 500 lb. per sq. in. rather than the 350 lb. per sq. in. customary for riveted units.

Another feature of the new extinguisher is a tough, plastic, transparent nozzle which resists mistreatment. Should it become plugged, the foreign matter can be seen and removed.

Pyrene has discontinued the manufacture of riveted type copper extinguishers and is continuing to produce seamless drawn copper alloy extinguishers.



It is necessary to fill the cartridge operated extinguisher only when it has been discharged. Annual recharging is eliminated.

Stainless steel welded extinguishers, in addition to the cartridge-operated water-type described above, will also be available in soda-acid and foam types.



Stocks of Yoloy steel pipe are available for prompt shipment

GENERAL NEWS

Firemen Postpone Strike for 2 Weeks

B. of L.F. & E. calls truce; will bargain through mediation

A strike of locomotive firemen represented by the Brotherhood of Locomotive Firemen & Enginemen, which was to have been effected at 6 a.m. on April 26 against the Pennsylvania (on its lines west of Harrisburg, Pa.); the New York Central (west of Buffalo, N. Y., including the Michigan Central lines west of the Detroit river, the Big Four and the Ohio Central); the Atchison, Topeka & Santa Fe (including its Coast lines), and the Southern, was postponed on April 24 following intervention by the National Mediation Board.

Francis A. O'Neill, chairman of the board, submitted a request early on April 24 for delay of strike action so that a meeting could be arranged (at

Chicago on April 27) for possible settlement of the dispute. D. B. Robertson, president of the B. of L. F. & E., announced at 2 p.m. the same day that the organization's officers would meet to discuss the board's proposal at 6:30 p.m., and, shortly thereafter, announced that a two-week postponement, until 6 a.m. on May 10, would be effected.

The brotherhood is seeking a second fireman on all road Diesel locomotives. A presidential fact-finding board recommended denial of the firemen's request on September 19, 1949, on the basis that the union's claims were "devoid of merit." Mr. Robertson announced eight days later that his union had rejected the emergency board's findings. Further conferences with the carriers were held on April 12, 1950, and on April 19 Mr. Robertson reported that the union was unable to get the carriers "to make any concessions" and announced plans for the four-carrier strike.

On the eve of the two-week truce, the

Santa Fe announced that it would attempt to operate some trains, but placed an embargo on all carload and lesscarload livestock, live poultry and perishable freight. The Pennsylvania embargoed all freight, passenger, mail, baggage and express traffic on its lines west and north of Harrisburg, Pa., while the Southern planned an embargo against any freight or passenger traffic unable to reach destination or to clear Southern lines by the strike deadline. Prior to the postponement, no specific action had been announced by the N.Y.C. All embargoes were lifted immediately following acceptance of the mediation board's conciliatory efforts.

Other Issues Also Involved

While the strike threat was pitched only upon the demand for an additional fireman on Diesel-electric locomotives operated in road service, there were in the case other B. of L. F. & E. demands which were also rejected by the emergency board. Presumably these may also become involved in the new mediation proceedings. They included a demand for the assignment of a fireman to smaller yard Diesels (those weighing less than 90,000 lb. on drivers) which, with some exceptions, are now run by enginemen alone. Also, there was a demand for elimination of the road-service exception which now permits operation of rail-motor cars without a fireman if such cars weigh less than 90,000 lb. And there were demands that the pay of firemen on electric and oil-burning steam locomotives be equalized with that of firemen on coal burners.

New Legislation Proposed

On April 21, two days after the strike threat was posed, Senator Donnell, Republican of Missouri, introduced in the Senate a bill to amend the Railway Labor Act to make "unlawful" any strike or lock-out arising out of a dispute falling within the purview of that act. The bill, S.3463, would eliminate the act's emergency-board procedures and substitute provisions for the appointment of "Presidential Boards," the findings of which would be binding on the parties, though subject to court review.

There are also in the bill provisions that would give "any party in interest" the right to appeal to the courts from decisions of the National Railroad Adjustment Board. In explaining his bill to the Senate, Senator Donnell emphasized that the compulsory-settlement procedures would not apply to disputes within the jurisdiction of the adjustment board.

Faricy Statement to "Railroad Hour" Audience

Advices that the strike had been postponed came on Monday night shortly before the time of the regular weekly broadcast of the "Railroad Hour" sponsored by the Association of American Railroads. During the broadcast, President William T. Faricy of the A.A.R. announced the strike postponement, making the following statement: "Word has just been received that the locomotive firemen who had called a railroad strike to begin Wednesday morning, have acceded to the government's request that the strike date be postponed two weeks.

"The purpose of the strike, if one is to be held two weeks hence, is to enforce a demand for an additional or extra fireman on Diesel locomotives—which would mean two firemen in addition to the engineer.

"The merits of this demand have been considered by two Presidential fact-finding boards. The first of these boards, appointed by President Roosevelt, found in 1943 that there was no need for an extra fireman on a Diesel locomotive. The second board, appointed by President Truman, also found in 1949 that there was no justification for the demand for another fireman.

"These findings were made only after exhaustive and impartial consideration of the facts submitted by both sides. The board found that work on Diesel locomotives is more desirable than on steam locomotives; that by improving the competitive position

of the railroads, the Diesel has helped to preserve jobs for firemen; that the safety record of Diesel operation is notably good so that there is no need for another fireman for safety reasons, and that the demands of the firemen's union are without merit.

"The firemen's organization has rejected the findings of the board.

"The railroads have accepted the recommendations of this board, as they have accepted the recommendations of all other Presidential fact-finding boards in national controversies.

"If a strike occurs two weeks from Wednesday morning—and if it spreads to other railroads and other sections of the country as is threatened—it will be for the sole and simple reason that the firemen's union refuses to accept the conclusions of an impartial board appointed by the President of the United States, and prefers instead to seek to enforce its demands by declaring economic war not merely upon the railroad companies but also upon the American people.

"The railroads have done everything in their power to preserve peace, but, in the public interest, they cannot yield to these wasteful make-work demands.

"I am sure that news of even a two weeks' postponement of the strike date will be received with relief by many who are deeply concerned about the effects of an interruption of rail service."

They would, however, apply to all other disputes covered by the act, which were not settled through mediation or arbitration. When its mediatory efforts had failed the N. M. B. would be required "at once" to request "in writing" that the parties submit the controversy to arbitration. If this request were not met within 15 days, the board would be required to notify the President. Upon receipt of such notice, the bill says, the President "shall create a Presidential Board to investigate and decide such dispute."

This board would consist of a chairman designated by the President, and "such number of other persons as the President believes desirable." It would be required to hold public hearings "promptly," and make a report. In the event of disagreement between the parties as to the meaning of the findings, any party could apply to the Presidential Board for clarification of the report. The board would then be required to issue a clarifying report, with or without further hearing.

Provisions for Judicial Review

Unless set aside by judicial proceedings, the report would be "conclusive and binding on the parties and enforceable by appropriate proceedings in the United States District Court for the District of Columbia or the United States district court for any district in which proceedings of the Presidential Board were held." Meanwhile, however, any party in interest could file in the same district courts a petition "to impeach the report." Such petitions would have to be filed within 30 days after the report was issued.

The impeachment petition could be bottomed on alleged grounds of invalidity as follows: (a) That the report does not conform to requirements of the act, or that proceedings leading to it were "not substantially in conformity" with the act; (b) that the report does not conform to the issue in the controversy; (c) that a member of the Presidential Board was guilty of "fraud or corruption," or that a party to the proceedings practiced "fraud or corruption." The courts would be prohibited from entertaining an impeachment petition based on a contention that the report was "invalid for uncertainty."

In the latter connection, the bill goes on to refer to its earlier provisions for reconvening the board for interpretation of the report. "A report contested as herein provided," it adds, "shall be construed liberally by the court, with a view to favoring its validity, and no report shall be set aside for trivial irregularity or clerical error, going only to form and not to substance." It is also provided that the court may invalidate parts of a report while validating other parts, if it finds them "separable."

Twenty days after a district court has passed upon a petition to impeach a report, its determination shall be final unless an interested party has appealed to the United States Court of Appeals. If

Strike Threat Has Already Caused Million-Dollar Revenue Loss to Southern, Norris Tells Employees

President Ernest E. Norris of the Southern sent to all employees of that road an April 26 letter advising them of traffic and revenue losses which have already resulted from the strike threat. The letter follows:

"All of you know that the Southern Railway System has been singled out in the South and threatened with a strike because it will not agree to place an additional fireman on diesel locomotives.

"As to the merits of the demand for the additional fireman, two impartial fact finding boards—one appointed by President Roosevelt and the other by President Truman—have both turned it down because it was not justified.

"What you may not realize is that the threatened strike—resulting in uncertainty as to our ability to provide service—has caused shippers and travelers to turn to other railroads or to highway and airway

carriers. This loss of traffic is continuing and will increase until our customers know they can count on Southern service. This re-routing has already cost us an estimated million dollars gross and the loss is increasing. Unfortunately, some of this traffic may never get back on our rails.

"With less business to handle, we already are running fewer trains and working fewer yard engines with consequent loss of employment in these services. I think you should know that if the traffic loss continues, reductions must be made in employment in all other departments in an effort to offset the great loss in our revenues.

"In our highly competitive transportation business, don't you think this is too big a price for Southern Railway employees to have to pay because of an unjustified strike threat?"

such an appeal is taken, the determination of the appeals court "shall be final and enforceable by appropriate judgment. . ."

Other provisions of the bill are those, mentioned above, which would make a strike or lock-out "unlawful." It would also be made "unlawful" for "any person, including a carrier or labor organization, (1) to coerce, instigate, induce, or conspire with, any other person to interfere by such unlawful strike or lock-out with the operation of any carrier subject to this act; or (2) to participate in, or to aid any such strike interfering with the operation of any such carrier, or to give direction or guidance in the conduct thereof or to further the same by the payment of strike, unemployment, or other benefits to those participating therein; or (3) to aid in any such lock-out interfering with the operation of any such carrier by giving direction or guidance to such lock-out or by providing funds for the conduct or direction thereof."

Violations would be misdemeanors, subjecting the offending person, carrier, or labor organization to the same penalties that section 2 of the act now provides for carriers violating its present provisions. They are a fine of not less than \$1,000 nor more than \$20,000 or imprisonment for not more than six months, or both fine and imprisonment, for each offense, each day of refusal to comply constituting a separate offense.

Present Act "Needs Amendment"

Senator Donnell's statement to the Senate argued that the bill's compulsory settlement procedures were required, because railroad strikes of recent years "have demonstrated that the present Railway Labor Act badly needs amendment in order to protect the interest of the public." He cited the Wabash and Missouri Pacific strikes of last year, and

the nationwide strike of May, 1946, which was staged by the Brotherhood of Railroad Trainmen and Brotherhood of Locomotive Engineers. And he also considered at some length the potential effect of the strike now threatened by the B. of L. F. & E.

"The bill," he continued, "would not deprive either the carrier or labor of the



From April 17 to May 27 a special 12-car train—the "Toscanini Tour Special"—will carry the National Broadcasting Company's symphony orchestra on an 8,500-mi. tour, with stops at 20 leading cities. Shown above, as the train departed from New York, are, left to right, Frank M. Folsom, president of the Radio Corporation of America; Arturo Toscanini, conductor of the orchestra, and David Sarnoff, chairman of the board of R. C. A.

opportunity to have their respective claims which may be involved in disputes fully and thoroughly considered and decided. . . . The bill does, however, recognize as predominant and outstanding the welfare of the people of the United States. . . ."

Announcement of strike's postponement brought indefinite suspension of an Interstate Commerce Commission order which would have authorized the affected roads to disregard routings and reroute traffic over any available open route. The order, which is not canceled but merely held in abeyance, is King's I.C.C. Order No. 23. It was issued by Homer C. King, director of the commission's Bureau of Service, pursuant to I.C.C. Service Order No. 562 which makes him the commission agent to authorize diversion of cars whenever, in his opinion, an emergency exists. The King order was suspended as of 12:01 a.m. April 25, the time at which it was originally scheduled to become effective.

Would End Water Aids; Unequal Regulation

Senate group hears of railroad difficulties from those sources

Railway difficulties arising from competition of subsidized water carriers, and from the present regulatory set-up which is "unfair to the railroads and partial to their competitors," have been explained, with recommendations for their elimination, to the Senate's subcommittee on domestic land and water transportation. The presentations were made, respectively, by Gregory S. Prince, assistant general solicitor of the Association of American Railroads, and W. L. Grubbs, general counsel of the Louisville & Nashville, who appeared in turn at April 20 and April 25 sessions of the public hearings which the subcommittee is conducting in connection with studies it is making pursuant to Senate Resolution 50.

The subcommittee, headed by Senator Myers, Democrat of Pennsylvania, is a unit of the Senate committee on interstate and foreign commerce. Chairman Myers and Senator Bricker, Republican of Ohio, attended the April 25 session of the hearing, but Mr. Bricker was the only subcommittee member on hand for the April 20 session.

Mr. Prince's recommendations included one calling for the imposition by the federal government of toll charges for the use of inland waterways. He also suggested that the Interstate Commerce Commission be given the job of determining the economic justification for proposed new waterway projects. Among several recommendations which Mr. Grubbs made for equalizing regulation were those calling for elimination of exemptions now applicable to trans-

portation of agricultural commodities by motor vehicle and of bulk commodities by water; extension of the Interstate Commerce Act's commodities clause to all types of carriers; repeal of the fourth section; removal of restrictions on railroad operations of highway and air services; and tighter rate regulation for contract carriers.

Asks "Clear Call" for "Fair Return"

The L. & N. general counsel also thought something might be done about the "lag between increases in prices and wages paid by the railroads and increased rates, fares and charges of the railroads." In addition, he recommended that the rule of rate making in the act's section 15a be revised to include a "clear call from Congress" for rates which would provide a "fair return." Between 1920 and 1933, when the rule of rate-making contained such a call, the railroads "experienced some fairly good years," Mr. Grubbs said. He added that, since 1933, they have been "in financial straits save only during the unprecedented World War II period."

"The railroad industry," Mr. Grubbs continued, "believes there is need for a revision of this section (15a) so as to reveal a more definite Congressional purpose and call upon the commission that it so exercise its rate making functions as to endeavor sedulously to increase the revenues of the carriers to the point where adequate and efficient service can be reasonably assured, the art of transportation further developed,

sound credit positions established, and the carriers continue in private ownership under honest, economical and efficient management—in short, to aim seriously for a return approximating 6 per cent on the fair value of the property devoted to public use."

In getting under way with his presentation Mr. Grubbs emphasized the railroad industry's position that elimination of subsidies to competing agencies is "fundamental" and of "primary importance." He added, however, that "such action would fall far short of accomplishing fairness or equality of treatment between the different modes of transportation, because . . . there is no equality of regulation." In supporting this contention, the L. & N. general counsel dealt first with what he called the "escape" provisions of the motor and water carrier parts of the Interstate Commerce Act.

Would Change "Escape" Clauses

As to section 203(b) (6), which grants exemption for motor transportation of agricultural products, livestock and fish, Mr. Grubbs said it has given rise to a "prolific development" of the so-called "exempt trucker." Such truckers, he added, "have raided heavily the business of the railroads, particularly in agricultural areas." And he pointed out how the "trip-leasing" device has permitted these truckers to reach out and participate in haulage of freight other than agricultural products and fish.

Mr. Grubbs also referred to court



J. M. Prickett (center), vice-president of the Kansas City Southern, throws a switch to light the company's new display sign adjacent to the Kansas City, Mo., union station. Measuring 87 ft. by 25 ft., the sign is believed to be the largest in the country utilizing black light. With Mr. Prickett are, left to right, Cecil Taylor, advertising manager, K. C. S.; L. O. Frith, assistant to the president, K. C. S.; E. A. Warner, vice-president, R. J. Potts-Calkins & Holden, Kansas City advertising agency, and Rudy Bauers, manager, General Outdoor Advertising Company, Kansas City

decisions giving liberal interpretation to the exemption proviso, and to the commission's investigation to determine the exempted agricultural commodities—No.MC-C-968, in which an examiner has recommended "a somewhat broader" interpretation of the exemption provision than the commission has heretofore used in cases involving particular commodities. Complete repeal of the provision was Mr. Grubbs' recommendation.

His like recommendation for elimination of exemptions applicable to the transportation by water carriers of commodities in bulk was based on a showing to the effect that most of the traffic on the inland waterways consists of commodities in bulk. The showing included figures indicating that carriers operating on the Mississippi system, which report tonnage to the I.C.C., handled in 1948 a total of 26,256,687 tons, of which 25,083,087 tons, or 93.8 per cent, consisted of bulk commodities of eight general classes. "It is upon such bulk traffic that the railroads so greatly depend for their needed revenues, and with respect to which there is keen competition between rail and water carriers," Mr. Grubbs added.

Basis for Fourth-Section Repeal

His call for repeal of the fourth section was based on a contention that changed conditions in the transport field have eliminated any necessity for such restrictions as the long-and-short-haul clause and aggregate-of-intermediates provision. Mr. Grubbs warned that the situation could not be corrected by extension of the fourth section to motor carriers (it already applies to water carriers as well as the railroads). "Such a remedy," he explained, "would be illusory, because many motor carriers operate only between the large centers, not serving any great intermediate territory, and therefore, would not be under the same disability as the railroads in considering reductions in terminal-to-terminal rates."

Because, as he put it, the national transportation policy is now "applied one way for the railroads and another for competing water carriers," Mr. Grubbs also called for repeal of the act's section 305(c). That section stipulates that differences in classifications, rates, etc., of a water carrier from those of a rail carrier "shall not be deemed to constitute unjust discrimination, prejudice, or disadvantage, or an unfair or destructive competitive practice, within the meaning of any provision of this act." The I.C.C., Mr. Grubbs said, has condemned water-competitive rates proposed by the railroads on the basis of the declaration of policy's call for "sound economic conditions in transportation, and among the several carriers"; but it has held that section 305(c) does not permit a like condemnation of rail-competitive rates published by water carriers.

Of Section 307(d), Mr. Grubbs said that, too, should be repealed if the com-

Railway Age Again Wins Safety Council Award

For the second successive year *Railway Age* has been selected by the National Safety Council as a recipient of its Public Interest Award "for exceptional service to safety." The award, which is non-competitive, has also been given to 17 other business publications in the United States and Canada, and to a number of newspapers, radio and television stations and general circulation magazines.

Judges for the 1949 awards were Norman Damon, vice-president, Automotive Safety Foundation; Frank Luther Mott, dean of the school of journalism, University of Missouri; Wesley I. Nunn, advertising manager, Standard Oil Company of Indiana; J. E. Ratner, editor, *Better Homes & Gardens*; Arthur Stringer, National Association of Broadcasters; Judith Waller, National Broadcasting Company, and Dwight Young, editor, *Dayton, Ohio, Journal Herald*.

mission has correctly interpreted it as a requirement that rail-barge joint rates must be lower than competing all-rail rates. The decision which the commission made on that basis in Rail and Barge Joint Rates, 270 I.C.C. 591, has been appealed to the courts by the railroads, Mr. Grubbs noted.

His recommendation for elimination of restrictions on railroad operations of motor trucks was addressed to conditions imposed by the I.C.C. to insure that the highway operations remain auxiliary to rail service. Later on, Mr. Grubbs made a like recommendation calling for a change in the Civil Aeronautics Board's present policy of excluding railroads and other "surface carriers" from operation of air transport services.

Tighter Regulation of Contract Rates

Meanwhile he had made an extended argument in support of his proposal that there be tighter regulation of the rates of contract carriers by highway and water. "Specifically," Mr. Grubbs said, "we recommend that contract carriers . . . be required to publish just, reasonable and nondiscriminatory rates and to adhere strictly to them, no change to be made therein except upon notice to the public such as is now required with respect to minimum rates of such carriers. Furthermore, we urge that the commission be given power to prescribe just and reasonable rates, which will not unjustly discriminate against persons or localities, for contract carriers."

As to the lag between railroad cost increases and offsetting rate increases, Mr. Grubbs suggested that the railroads "would probably fare better if the commission were in the first instance to grant the full measure of the increases it appeared they needed to meet increased costs subject to reparation awards . . . if it subsequently appeared the amounts authorized were in

any respects excessive." To step up state action on rate increases, Mr. Grubbs recommended that the act's section 13 be amended to give the I.C.C. jurisdiction over intrastate rates involved in general rate cases in states where regulatory bodies had not acted within 45 days after an I.C.C. decision has been issued.

The L. & N. general counsel also dealt with the problem of unprofitable passenger train operations. To help the railroads solve it, he recommended that the I.C.C. be given authority to override state commissions and authorize discontinuance of services that "burden" interstate commerce.

Recommends Tolls on Waterways

Mr. Prince's recommendation for imposition of toll charges on inland waterways went on to suggest that such charges generally should be high enough to cover all capital and maintenance costs borne by the government; and that the government should abandon all waterway projects from which at least the costs of operation and maintenance cannot be recovered through tolls. In support of his recommendation calling for I.C.C. determination of the economic justification for proposed waterway projects, Mr. Prince said that new waterways are really extensions of transportation facilities.

"A finding that the full costs of the proposed project will be met by the imposition of tolls," he continued, "should be made a prerequisite to a favorable recommendation of each subject, as well as a finding that the project would be in furtherance of the national transportation policy. Similar responsibility should be placed upon the Interstate Commerce Commission with respect to the navigation features of multiple purpose projects. The backlog of authorized or recommended inland waterway navigation projects should receive the most careful reexamination, and in that connection, reports as to economic justification should be obtained from the I.C.C. for consideration by Congress."

The A.A.R.'s assistant general solicitor also suggested that Congress "might well give some thought to the wisdom of referring all inland waterway navigation projects to the committees on interstate and foreign commerce, instead of to the public works committees, and of employing separate bills for the authorization of the larger and more important of such projects rather than including them in omnibus bills."

Waterway Users Heavily Subsidized

Meanwhile, Mr. Prince had put at "almost three billion dollars" the total of public funds which have been spent for the benefit of inland waterway transportation. He noted that users of inland waterways pay "nothing" for the facilities over which they operate. Thus, "a substantial portion of their transportation costs is imposed on the nation's taxpayers," Mr. Prince added. And he went on to point out that this situation has the effect of diverting to the water

carriers a substantial volume of business which they would not get if their rates reflected the entire cost of their service.

"The government's inland waterway policy," he continued, "is directly opposed to the declared national transportation policy. It provides for partial, unequal and unfair treatment of competitive forms of transportation; it neither recognizes nor preserves the inherent advantages of each form of transportation; it fosters unsound and uneconomical conditions in transportation; it discourages the establishment and maintenance of reasonable charges for transportation services without discrimination—all to the end that transportation service is furnished in this country at a greater overall cost than is necessary with a consequent weakening of our national transportation system."

Mr. Prince also referred to the special subsidy situation arising from the government's "experiment" in operating the Federal Barge Line. The line is operated by the government-owned Inland Waterways Corporation, which, Mr. Prince said, has lost money during most of the 25 years since its organization.

The accumulated deficit as of June 30, 1949, was \$15,604,000, he added.

"The enormous subsidy to users of the barge line is obvious," Mr. Prince continued. "Not only do they enjoy the subsidy from the use of free waterways, but in addition, they enjoy the subsidy from the operation of the barge line at a loss made up by the government. The unfair and unequal competition for the railroads caused by the continuation of operation of the barge line is apparent. The government should withdraw from the barge line business as promptly as possible by authorizing its sale, or the sale of its equipment, at the best terms available."

Consolidated Statements Will Be Required for 1950

The Interstate Commerce Commission has made public a February 28 order of its Division 1, which will require railroads having annual operating revenues of \$10,000,000 or more to file "consolidated statistical statements" as supplements to their annual reports beginning with the report for the year 1950. The order supplants a December 18, 1941, order under which no "consolidated statistical statements" were filed, the requirement having been postponed by the commission from time to time.

The filing instructions and schedules which are part of the present order represent modifications of those embodied in the supplanted order. While a subcommittee of the general committee of the Accounting Division, Association of American Railroads, was consulted in connection with the framing of the schedules, it nevertheless remains the position of the division that the requirement should be rescinded entirely by the commission.

The order makes provision for interested parties to file with the commis-

Marion J. Wise Dies

Marion J. Wise, president of the Central of Georgia, died on April 26 after a heart attack. Mr. Wise began his railroad career in 1901 as a clerk for the Mobile & Ohio, now part of the Gulf, Mobile & Ohio.

sion, on or before June 30, written statements of reasons why it should not become effective with the filing of the reports for 1950. "Unless otherwise ordered after consideration of objections," it will become effective on that basis.

Effective Date of Rail-Barge Differentials Again Set Back

The Interstate Commerce Commission has further postponed, from May 31 until July 31, the effective date of its order requiring railroads and water carriers on inland waterways to establish through routes and joint rail-water rates reflecting differentials under all-rail rates. The further postponement was sought by the railroads because of their appeal of the case to the United States Supreme Court.

Asks Congress to Probe Mail Pay of Railroads

Representative Walsh, Democrat of Indiana, has introduced a resolution in Congress calling for a "sweeping investigation" of the Post Office department, and of the "subsidies and overpayments made by the department to railroads for transportation of the mails." The resolution, H.Res. 547, would create a select committee to investigate the curtailment-of-service orders contained in the Postal Bulletin of April 18. The curtailments, an alleged economy move in the postal department, were called "utterly ridiculous and unnecessary" by Mr. Walsh. He asked that Congress investigate the entire postal system, including the "hidden subsidy" paid to railroads, and the "waste of taxpayers' funds going on in the air industry under the pious name of postal subsidies."

In a speech on the floor of the House, Representative Walsh declared that the postal service is the only institution in the United States "which pays double transportation charges." He said he had "positive proof" that the postal service "spends upward of \$100,000,000 each year for the use of mail cars that are absolutely empty."

As to the curtailment orders issued April 18, Representative Walsh said they would reduce delivery service in the Post Office department "to such an extent that it will mean a reduction in force of a minimum of 10,000 employees. One can only surmise that empty boxcars are more important than human beings," he added. He said his resolution would bring about an investigation of these

"unhealthy conditions," and correct the situation so that "legitimate rates will be determined for legitimate services." He asked that if subsidies were necessary they be separated from payment for actual services and not charged against the postal department. He invited support of his resolution by saying that "something must be done to save the postal service and the American taxpayer from the horrible situation which exists today."

Emergency Board Reports On Switchmen's 40-Hr. Case

The emergency board appointed by President Truman to investigate the dispute involving demands of the Switchmen's Union of North America for a 40-hr. week for its members has recommended that those yard-service employees be given the same treatment as may be accorded yardmen represented by the Order of Railway Conductors and Brotherhood of Railroad Trainmen, who are making like demands in another pending case. While separate boards were created by President Truman for the two cases, he appointed the same three individuals to both boards.

They are: Chairman Roger I. McDonough, chief justice of the Supreme Court of Utah; M. J. O'Malley, former justice of the Supreme Court of Indiana; and Gordon S. Watkins, professor of the University of California (Los Angeles). They have since been appointed as members of a third board which the President has created to investigate another 40-h.-week case involving employees represented by the Railroad Yardmasters of America.

Messrs. McDonough, O'Malley and Watkins made their report in the Switchmen's case to meet that requirement of the Railway Labor Act which calls for reports by emergency boards within 30 days of their appointment. The Switchmen's Union refused to agree to an extension of time, such as had already been agreed upon by parties to the case involving yardmen represented by the O.R.C. and B. of R.T. Yardmen employed by 11 western roads are involved in the Switchmen's case.

As indicated above, the report made by Messrs. McDonough, O'Malley and Watkins in their role of emergency board in that case did not go to the merits of that controversy. Its recommendation that the involved employees be accorded the same treatment as may be given other yardmen was based on its conclusion that "different treatment cannot be accorded those groups of yard service employees without seriously disrupting established wage and rules relationships and generally disturbing labor relations on the railroads." Presumably this conclusion was also the basis of the report's suggestion that a "distinct advantage would obtain" in having boards of the same membership consider both disputes.

Another recommendation of the report

was that the Switchmen's Union, if it so desires, be given an opportunity to present any new evidence on any phase of the dispute, provided the board is given such extension of time "as may be required" to complete its work. The board, the report concluded, is "holding itself available for whatever additional service may be deemed necessary to assure an objective and complete inquiry into the issues and facts and to safeguard the public interest and welfare."

Susquehanna Tests Budd Rail Diesel Car

The New York, Susquehanna & Western began trial revenue service of the Budd Company's rail Diesel car on April 25, according to an announcement by Henry K. Norton, trustee of the road. The RDC will operate for two weeks on the 15-mi. run between Paterson, N. J., and Susquehanna Transfer, making eight round trips daily.

Three Roads Hit by Flooded Red River of the North

Service on lines of the Great Northern, Soo Line and Northern Pacific which traverse the valley of the Red River of the North has been seriously affected by heavy spring floods. The river, which flows northward between the Dakotas and Minnesota, emptying into Lake Winnipeg in Canada, has been the scene of widespread floods, particularly in the area of Grand Forks, N. D. Northern Pacific transcontinental service has been restored to normal following operation by several detours. Service to Winnipeg, Man., will probably be restored to normal about May 4. Meanwhile freight service is being detoured between Detroit Lakes, Minn., and the Canadian border, and passenger service is suspended north of Grand Forks. Several branch lines in North Dakota have been entirely suspended, although operation of all but one of them is anticipated by April 30. The one branch probably will not be operating until at least May 10.

The Great Northern reports that, as of April 25, its Winnipeg freight and passenger trains are being detoured between Crookston and Noyes, and one branch in North Dakota is entirely idle. Flood conditions had previously forced curtailment of services on two other branches in North Dakota and one in Minnesota, in addition to the Fargo-Grand Forks line, for a period of from one to three days.

The Soo Line's route to Winnipeg, Man., appears, for the moment at least, to be out of reach of the waters, and traffic of both the G.N. and the N.P. is currently being detoured over it. Westward from Thief River Falls, however, service is suspended to Fordville, N. D., because of high water between Warren, Minn., and Conway, N. D. on opposite sides of the Red River Valley. Service on this line will probably be resumed about May 5. The Soo Line has also reported high water conditions along the

Missouri river north of Bismark between Arnold and Wilton. Service here will probably be resumed about April 29 or 30.

As *Railway Age* goes to press a new storm, described as a "near blizzard," has struck the entire Red River Valley area, leaving from 8 to 16 inches of snow in its wake. Further trouble is anticipated unless this snowfall is held back by low temperatures until the present flood passes its peak.

Advises House Not to Block Truman Plan to Revamp I.C.C.

The House committee on expenditures in the executive departments voted on April 25 to disapprove House resolution 545 which is designed to block President Truman's proposal to vest in himself the

authority to designate the Interstate Commerce Commission's chairman while making that official responsible for the "internal administration" of the commission. The resolution is sponsored by Representative Crosser, Democrat of Ohio, who is chairman of the House Committee on interstate and foreign commerce.

The President's plan was submitted under the Reorganization Act of 1949 which provides that such plans shall become effective in 60 days unless the Senate or House passes a resolution disapproving them. The committee's adverse action on the Crosser resolution came after hearings at which the resolution was supported by several witnesses, including J. C. Gibson, vice-president and general counsel of the Atchison, Topeka & Santa Fe, who represented the Association of American Railroads, C. A. Miller, vice-



"Rock Island Trail," a film portrayal by Republic Pictures Corporation of the building of the Chicago, Rock Island & Pacific, was scheduled for premiere showings in Rock Island, Ill., Moline and East Moline, and Davenport, Iowa, on April 27, with showings in commercial theaters throughout the country to follow. Filmed in color, the picture stars Forrest Tucker, Adele Mara, Adrian Booth, Bruce Cabot and Chill Wills. The two scenes from the picture reproduced here show, above, preparations for defense against Indian attack, and, below, destruction of the railroad's first wooden bridge across the Mississippi river





Chicago Tribune Photo

An occasional job of coupling and uncoupling air hoses does not warrant penalty payments to trainmen, according to testimony presented by Frank J. Goebel, vice-president of the Baltimore & Ohio, to the fact-finding board which is hearing the demand of the conductors and trainmen for a 40-hr. week and rule changes. Mr. Goebel is shown watching L. W. Horning, vice-president of the New York Central, demonstrating, with the aid of wooden mock-ups, the ease and rapidity with which freight-car couplings may be effected. The railroads propose modification of those working rules which require payment of additional compensation to trainmen for coupling or uncoupling cars. "Duplicate" payments to trainmen for performing occasional jobs of coupling and uncoupling cost the railroads more than \$4.3 million a year, Mr. Goebel testified

president and general counsel of the American Short Line Railroad Association, A. E. Lyon, executive secretary-treasurer of the Railway Labor Executives Association, and Donald D. Conn, executive vice-president of the Transportation Association of America.

Meanwhile, the Senate committee on expenditures in the executive departments also held hearings this week on the like resolution (S. Res. 253) introduced by Senator Johnson, Democrat of Colorado, who is chairman of the Senate committee on interstate and foreign commerce. Some of those appearing at the House hearing made similar presentations before the Senate committee, which also heard statements supporting the resolution from Granville Curry and J. Ninian Beall, representing the Association of Interstate Commerce Commission Practitioners.

The I.C.C. is on record in opposition to a "strengthening" of its chairmanship as contemplated by recommendations made by the (Hoover) Commission on Organization of the Executive Branch of the Government. The opposition was registered in the commission's latest annual report to Congress, which also defended the present commission plan of annually rotating the chairmanship among its members.

Some of those appearing at this week's

Congressional hearings pointed out that the President's proposal departs from the Hoover-Commission recommendation in transferring the power to select the chairman from the commission to the President. As vice-president Gibson of the Santa Fe explained, a provision like the President's proposal was included in the report of a Hoover-Commission "task force," but "was omitted from the final report of the Hoover Commission itself."

West Coast Water-Competitive Rates Now O.K., I.C.C. Says

A report which finds that present rail rates between Pacific Coast ports are "not below reasonable minimum rates" has been issued by the Interstate Commerce Commission, thus bringing to a close the commission's investigation of competitive rail and water rates between California, Oregon, and Washington. The investigation, which the I.C.C. instituted March 27, 1947, embraced two dockets—No. 29721 and No. 29722. In connection with the water carrier rates, the commission found the present rates not unlawful.

The new report, the second issued in the proceedings, was written by Commission Aitchison, and is a comprehensive review of the rail-water competitive situation along the Pacific Coast. The re-

port directs attention to "minor instances of [rail] rates in need of further revision," but generally finds that rail rates initiated since the commission's June 26, 1947, report are not "unreasonably low." The commission's former report was reviewed in *Railway Age* of July 5, 1947, page 59.

In the former report the commission rescinded the fourth-section relief previously granted to the railroads, and directed the roads to revise their coastal rates so as to remove any "unwarranted and unjustifiable disparities" between those rates and rates from and to interior points. Following that order, the roads made the required adjustments in two steps: They established new rates on a "stop-gap" basis to meet the commission's September 15, 1947, deadline; and followed this step with a more thorough revision. The latter adjustment became effective as to commodity rates on January 1, 1948, and as to class rates on November 5, 1949.

The commission's present report examined this adjustment, and found the average estimated increase in the port-to-port rail rates had been 34 per cent. Noting that there was no contention that present rail rates were above a maximum level, the commission turned to the water carriers' contention that the rates were below the reasonable minimum and should be increased. In this respect, the commission found the rates were yielding an average of 225 per cent of the minimum earning of 6 mills per ton-mi. fixed by the I.C.C. in 1930 as a minimum rate between the ports on commodities subject to a 40,000-lb. minimum weight.

Turning to the water lines, the commission said these carriers had increased their rates since the original report, and added that they had been and still were free to propose rates they feel their interest requires. As to present water rates, the commission found a "general insufficiency" of the rates to yield revenue to cover costs plus a fair return on investment. The commission then went on to say these rates could not in practice be increased unless there were "corresponding or even greater increases in the rail rates," and pointed out that such "radical increases" in rail rates would either stifle the movement of goods along the coast or divert most of it to trucks. Later in the report the commission said it would be necessary to increase rail rates on the average of 27.2 per cent to equalize the total cost to the shipper for the two services.

The report also compared relative rail and water rates and costs and found the "substantial accessorial charges" attendant to the use of water service eliminate or convert into a disadvantage the initial rate advantage of the water carrier. The accessorial charges include cargo handling at ports which represents "more than 50 per cent of the total cost" for water carriers, while it was noted with respect to rail carriers that terminal costs "comprise less than 20 per cent of all direct costs."

A principal contention of the water

carriers at the second hearing was that "unwarranted disparities" still existed between the railroad coastal rates and those to and from interior points. The commission's report examined rates on 16 specific commodities in which it had noted "substantial disparities" but none of the rates was found unreasonably low. Discussing the rail rates in general, the commission said more than 80 per cent of the present coastal rates are in excess of "full cost plus taxes, return on investment, and passenger deficit." It did note, however, that on some articles—"automobiles, woodenware, petroleum, coke, sulphur, plaster, and cocoa, and possibly on paper articles and salt"—certain rates were low in relation to cost "for loads no higher than the published tariff minima."

Concluding its findings, the commission said the "general existing level" of the coastal rail rates was justified when all conditions were considered, but added that it expects the rail carriers "to examine questioned rates . . . and to make such further adjustments as may be required." As to water carriers, the commission said: "The plight of the water lines is not caused by an unreasonably low level of rail rates, but is primarily due to their own high terminal costs and to the accessorial costs incurred when a shipper uses water service. The coast-wise water lines cannot attract the tonnage they desire . . . when their patrons must incur costs merely in getting shipments on and off the vessel, frequently equal to and sometimes more than the full cost to the competing railroad of making shipment by rail between the same points, profit added."

N.Y.C. Rail Diesel Car Starts Service on May 1

The first of two rail Diesel cars ordered by the New York Central System from the Budd Company will go into regular service on the Boston & Albany between Boston, Mass., and Springfield, on May 1. (See *Railway Age* of February 4, page 67.) Constructed at a cost of approximately \$141,500 each, including automatic train control safety devices, the 89-passenger "Beeliners," as the Central calls them, will be spaced between conventional passenger trains. They will be operated singly between seven Massachusetts communities a total of 800 mi. daily, except Sunday, providing eight new trips between Boston and Springfield, increasing total daily trips between those points to 33. The 98-mi. run each way will be covered in two hours, including the five intermediate stops.

Canadian Unions to Take Strike Vote on Wage Question

The joint negotiations committee of the Canadian Brotherhood of Railway Employees and Other Transport Workers, and the Brotherhood of Express Employees, meeting at Montreal, Que., early this week, decided to take a strike vote of the 35,000 employees represented, in

connection with the unions' pending wage-hour dispute with Canadian railroads. No date was set for the vote, but it was indicated it may be two or three weeks before the strike ballots are ready.

As reported in the *Railway Age* of April 22, page 71, the unions are demanding a 40-hr. week, a 10-cents-per-hour wage increase, and a check-off system for union dues. They have rejected a proposed conciliation board report which suggested a 44-hr. week and a 6.8-cent hourly wage increase, with no check-off.

T-M-K Board Goes In for Drama

"Perfect Shipping," a fast moving skit, was presented in lieu of the conventional freight claim prevention clinic by the Trans-Missouri-Kansas Shippers Advisory Board at its April 19 meeting in St. Louis, Mo. Presented on the trading floor of the St. Louis Merchants Exchange, the playlet featured players from both shipper organizations and railroads, and showed the folly of "penny wise" shipping practices which eventually cost the so-called "Export & Import Shipping Co." over \$100,000 in loss and damage claims. In addition, the program featured a humorous talk by Beulah Schacht, a local radio personality, on perfect shipping and freight handling in general—a subject of which the speaker professed to know precisely nothing.

The affair was designed for men who actually handle freight and express shipments; its success was evident in attendance of over 500 freight handlers, car inspectors, clerks, yard employees and supervisory forces of 64 industrial firms, 28 railroads and 9 other transportation agencies of the St. Louis area.

Heavier Pay Loads Can Raise Net, Dick Tells N.Y. RR Club

"Realizable savings" from "increasing the pay load per car" can be "very important" to the railroads, Fairman R. Dick, of Dick & Merle-Smith, told the New York Railroad Club at its April 20 meeting, in an address based largely on the results of studies by Robert Janeway, dynamics engineer for the Chrysler Corporation.

Even "after all adjustments are made" for higher equipment costs, Mr. Dick said, "increasing the pay load per car will increase net earnings substantially." In support of this contention, he compared the periods 1921 to 1939, "when the pay load per car was decreasing slightly," and 1939-1943, "when the pay load per car increased substantially."

In the former period, he pointed out, while "the cost of carrying total load fell \$1.700 million . . . the cost of carrying pay load fell only \$1.450 million. . . . No less than \$250 million of the economies achieved in total load costs were not paying off in lower pay load costs." From 1939 to 1943, on the other hand, "the cost of carrying the gross weight increased with wages, materials and other inflationary costs, but the cost of carrying a ton

of pay load declined against the inflationary trend. . . . This achievement in cutting pay-load costs in the face of systematic and overall inflation paid off in transportation savings of \$800 million."

While expressing confidence "that there will be no difficulty in financing, by conventional equipment trusts, a number of modern cars sufficient to provide a conclusive demonstration of their earning power and value," Mr. Dick also pointed out that "there is a definite limitation to the financing of new equipment by equipment trusts. When railroads sell equipment trusts, they do not raise new capital. They merely buy equipment on the installment plan. . . .

"If the railroads are really to modernize their freight car equipment, and continue with their Dieselization program, new capital in substantial amounts will be required. . . . If our railroads are protected in their right to earn an adequate return, and permitted to readjust their rates, establish a competitive rate structure, and really and freely compete, there will be no difficulty in raising this new money."

Participants in the discussion of Mr. Dick's paper included the president of the club, Perry M. Shoemaker, vice-president of the Delaware, Lackawanna & Western; David E. Smucker, trustee of the Long Island; E. J. Stubbs, general superintendent of transportation of the Erie; and F. N. Nye, assistant to general freight traffic manager of the New York Central, among railroad officers; and Mr. Janeway; Ben Coleman, of General American Transportation Corporation; C. J. Symington, of the Symington-Gould Corporation; Charles W. Braden, of National Distillers Products Corporation; and James G. Lyne of *Railway Age*. To make heavier loading feasible, it was pointed out, it is necessary to have modern cars designed to deliver lading without damage in high-speed operation, but there was no complete agreement as to what mechanical specifications are required to make a car "modern."

Even though the railroads do acquire enough cars of modern construction to meet all needs for high-type cars to handle commodities requiring the best equipment, heavy loading to the extent Mr. Dick contemplated, he stated, could only be secured with the full cooperation of shippers and receivers of such commodities.

To obtain the greatest degree of cooperation from the shippers, Mr. Braden observed, there should be some inducement to load beyond the tariff minimum carload weight, and he suggested that the best inducement would be a discount from the minimum carload rate in proportion to the amount by which the load exceeds the minimum.

Mr. Coleman explained that General American, in offering its "damage free" box car to the railroads on a lease basis, did not expect that all existing box cars would be replaced by cars of that type, but that with a fleet of high-speed, high-load-capacity cars the railroads would be better able than they now are to com-

pete with the trucks for high-class, high-rate freight. To the extent that the railroad viewpoint was expressed, there seemed to be some doubt whether opportunities have been exhausted to get heavier loading of cars built in recent years according to more orthodox specifications. As more modern cars become available, and as truck competition continues, it was suggested the railroads will do things that have never been considered possible in the way of service to shippers and freight car performance.

N.Y.C. to Be Over 35% Dieselized or Electrified

Delivery of Diesel-electric locomotives now on order is expected to increase to more than 35 per cent the New York Central's proportion of Dieselized and electrified mileage, Gustav Metzman, president, said in the road's annual report released to stockholders last week. The proportion in 1949, he said, was 28.7 per cent, compared with 21 per cent for 1948. "In passenger service," the report added, "34 per cent of our train mileage was performed with Diesel-electric or electric power. Our freight service was 19.1 Dieselized or electrified. In yard switching, 41 per cent of our operations were either Diesel or electric-powered."

Lets Official-Territory Roads Cut Rates on Steel

The Interstate Commerce Commission on April 20 voted not to suspend the tariffs filed by Official-Territory railroads to cut their rates on certain iron and steel products by about 25 per cent to meet motor truck competition. The rates are scheduled to become effective May 1.

In the latter connection, the commission denied the railroads' application for

short-notice permission to make the adjustment effective prior to that date. The commission's decision not to suspend the tariffs was reached two days after it heard oral argument on the matter. The argument included opposition presentations by counsel for truck and water carrier interests (see *Railway Age* of April 22, page 64).

As reported in the issue of March 18, page 84, the reduced rates will apply in connection with carload minimum weights of 80,000 lb., or double the 40,000-lb. minimum applicable in connection with the "normal" rates. While the cuts will average about 25 per cent, they will run as high as 33½ per cent for the shorter hauls.

Smaller Volume of Wood Treated in 1949

About four per cent less wood was given preservative treatment in 1949 than in 1948—279,804,501 cu. ft. compared with 292,357,303 cu. ft.—according to a preliminary report prepared by the U. S. Forest Service in cooperation with the American Wood Preservers' Association. This report is based on information furnished by 270 plants, representing about 95 per cent of the capacity of the wood preserving industry. The consumption of preservatives also decreased, but not in the same proportion as the volume of wood treated. In fact, the consumption of liquid preservatives, although showing a decrease from 234 to 231 million gallons in this preliminary report, may show a slight increase over 1948 consumption when reports have been received from all plants. The consumption of solid preservatives dropped from 10.6 to 7.1 million pounds (about 33 per cent).

Decreases were noted in all types of materials treated by the reporting companies, except piles, poles, and construc-

tion timbers, the most significant decreases occurring in crossarms and miscellaneous material. The number of poles increased from 5,543,076 in 1948 to 5,543,933 in 1949; piles from 15,799,694 lin. ft. to 15,966,022; and construction timbers from 67,413,069 to more than 75 million bd. ft. The number of crossies treated decreased from 41,158,744 in 1948 to about 40 million in 1949; switch ties from 138,675,542 bd. ft. to 130 million; the number of crossarms from 2,250,558 to about two million; and miscellaneous material from 439,052,152 bd. ft. to less than 370 million.

Freight Car Loadings

Loadings of revenue freight in the week ended April 33 totaled 722,644 cars, the Association of American Railroads announced on April 27. This was an increase of 15,372 cars, or 2.2 per cent, above the previous week, a drop of 46,703 cars, or 6.1 per cent below the corresponding week last year, and a decline of 129,282 cars, or 15.2 per cent, under the equivalent 1948 week.

Loadings of revenue freight for the week ended April 15 totaled 707,272 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

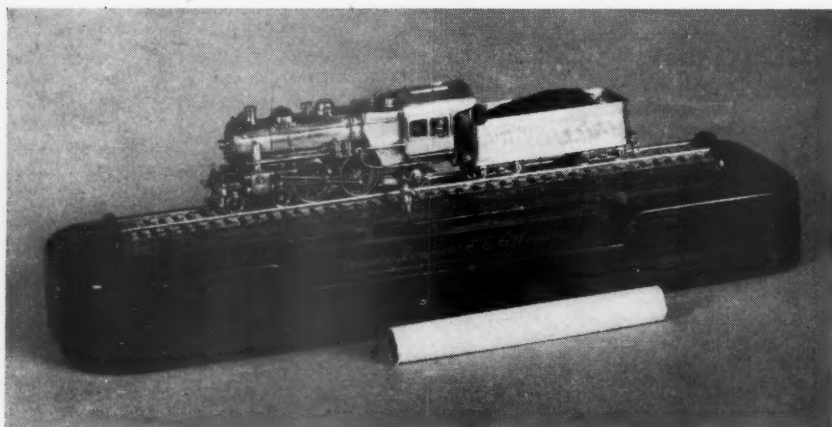
REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, April 15			
District	1950	1949	1948
Eastern	131,464	139,129	142,145
Allegheny	149,262	166,869	152,205
Pocahontas	61,512	65,479	51,318
Southern	126,446	119,089	132,646
Northwestern	71,239	109,418	122,644
Central Western	110,685	109,605	116,229
Southwestern	56,664	56,354	67,424
Total Western Districts	238,588	275,377	306,279
Total All Roads	707,272	765,943	784,611
Commodities:			
Grain and grain products	38,987	42,849	38,780
Livestock	8,259	8,946	14,030
Coal	152,951	157,710	129,911
Coke	14,266	14,894	9,699
Forest products	38,706	36,223	41,764
Ore	16,011	63,958	64,510
Merchandise l.c.l.	84,712	94,895	109,344
Miscellaneous	353,380	346,468	376,553
April 15	707,272	765,943	784,611
April 8	700,129	757,784	682,934
April 1	720,353	725,623	660,631
March 25	717,233	596,329	663,663
March 18	725,570	607,922	699,593
Cumulative total 15 weeks ..	9,534,516	10,480,038	11,293,157

In Canada.—Car loadings for the week ended April 15 totaled 69,042 cars, compared with 63,594 cars for the previous week, and 64,776 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 15, 1950	69,042	31,802
April 16, 1949	64,776	30,801
Cumulative totals for Canada:		
April 15, 1950	1,027,188	450,480
April 16, 1949	1,080,969	478,326

New England Shippers Consider Loss and Damage

"We shippers and the public should have a perpetual analytical study related to each of the 260 commodity groups used by the Interstate Commerce Com-



A model of a Pennsylvania E-6 Atlantic type locomotive, 4½ in. long, shown at the 20th annual exhibition of the New York Society of Model Engineers held at the Delaware, Lackawanna & Western's Hoboken, N. J., terminal in February, 1950. This model shared the "best in show" award with a much larger model of the U. S. Navy tug "Navajo." It is a complete working model to a scale of 1/16 in. per ft. — its overall size is indicated by the cigarette photographed with it. All parts, except the "grain-of-wheat" headlight bulb, were made by the builder, George L. Miller of Hackensack, N. J. The model is operated electrically by a three-volt motor in the cab

mission for their statistical reports." So Henry H. Pratt, general traffic manager of the Crucible Steel Company of America and president of the Atlantic States Shippers Advisory Board, said at Bridgeport, Conn., on April 17, in addressing a meeting sponsored by the Bridgeport Traffic Association and the New Haven, Conn., Chamber of Commerce in furtherance of the 1950 Perfect Shipping Campaign of the New England Shippers Advisory Board.

"We have made," Mr. Pratt said, "some progress with our programs, but they are too general in scope and application. . . . Something more specific and more advanced must be applied."

The Bridgeport meeting was one of a series being sponsored by the Loss & Damage Prevention Committee of the New England board at key points in its territory, as reported in the *Railway Age* of April 1, page 82, under the general supervision of Arthur P. Little, general traffic manager of the Dennison Manufacturing Company, chairman of the committee, and vice-general chairman of the management committee of the national campaign. The several meetings, at which attendance has run into the hundreds, have been addressed by executives of New England railroads and industrial traffic managers.

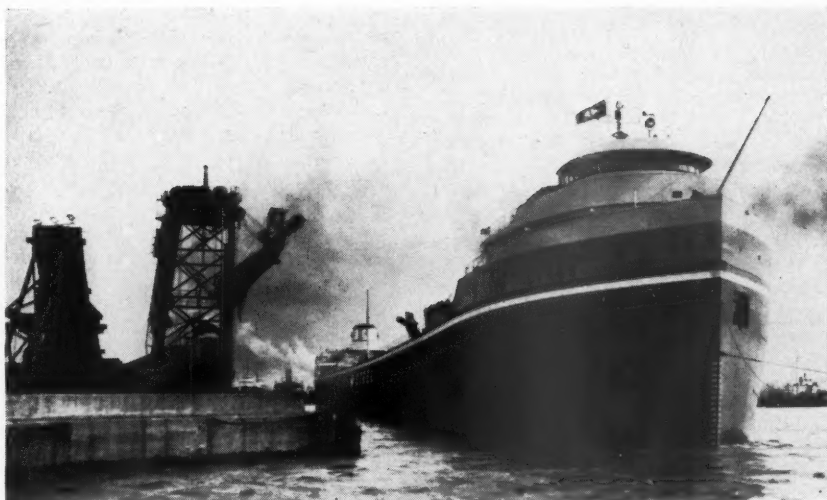
Knudson Installed April 20 As Member of I.C.C.

With more ceremony than has been the custom on such occasions in the past, James K. Knudson, new member of the Interstate Commerce Commission, took his oath of office on April 20. Other members of the commission were on hand to welcome Mr. Knudson to the bench, and a large crowd filled the hearing room, where the oath was administered by Chief Justice Harold M. Stephens of the U.S. Court of Appeals for the District of Columbia.

Following the installation, Commissioner Knudson was escorted to the bench by W. P. Bartel, secretary of the commission. As he took his seat there, Chairman Johnson brought a laugh with his remark that "It takes only a moment to become an Interstate Commerce Commissioner, but it takes a long time to get out." When the formal session adjourned, Commissioner Knudson remained in the room for almost an hour while visitors filed past to offer congratulations to him and Mrs. Knudson.

Canadian Pacific Expands Calgary-Edmonton Service

The Canadian Pacific will put two new daily trains into operation between Calgary, Alta., and Edmonton on April 30. The new trains—the "Stampeder" and "Eskimo"—will cover the 194-mi. trip in 4½ hr., and will be made up of modern lightweight equipment. Each will leave Calgary at 8:30 a.m. and Edmonton at 3 p.m.



The S. S. "Wilfred Sykes," said to be the largest and fastest ore carrier on the Great Lakes, and new flagship of the Inland Steel Company's lake fleet, took on its first cargo—16,537 tons of coal—at the Chesapeake & Ohio's coal dock at Presque Isle, near Toledo, Ohio, on April 20 for its maiden voyage to Indiana Harbor, Ind. The steamer's total capacity is 20,000 tons

P.R.R. Cuts Service Charge

The \$1 service charge for each seat reservation on Pennsylvania reserved seat coach trains was reduced to 50 cents for trips of 360 mi. or less, effective April 24, because of additional space for accommodation of short-distance travelers on the road's coach streamliners.

New Sleepers Installed on Trains Serving South

The Pennsylvania and the Chicago & Eastern Illinois have announced inclusion of all-room lightweight sleeping cars in the consists of the every-third-day "South Wind" and "Dixie Flagler," effective about April 29. A bar-lounge car containing six double bedrooms, and a 21-roomette car, will replace standard weight cars now operating in each of these Chicago-Miami trains.

Five new light-weight streamline sleeping cars, purchased from the Pullman-Standard Car Manufacturing Company, have been placed in service by the Illinois Central on the "Panama Limited" between Chicago and New Orleans, the "City of Miami," between Chicago and Florida, and the "Louisiana," between Chicago and Hot Springs, Ark. The I.C. has also placed modernized, all-room sleepers of standard weight on its "Night Diamond" between Chicago and St. Louis, Mo. Accommodations of the lightweight cars include 10 roomettes and 6 double bedrooms.

Effective northbound April 29 and 30, and southbound May 1, the Atlantic Coast Line will provide streamline 14-roomette-two-drawing-room cars between New York and Wilmington, N. C., on its "Havana Special" and between Washington, D. C., and Wilmington on the "Palmetto." On the same dates, the Coast Line will introduce 10-roomette-six-

double-bedroom cars on the "Palmetto" between New York and Savannah, Ga., and on the "Havana Special" between New York and Tampa, Fla., and Fort Myers.

Vacates Fourth-Section Relief On Anthracite to New England

Division 2 of the Interstate Commerce Commission has canceled fourth-section relief which railroads have had for several years in connection with publication of water-competitive rates on anthracite coal from Pennsylvania fields to points in New England. The relief, which will end July 5 under the division's order, has permitted maintenance of the water-competitive rates without observance of the fourth section's long-and-short-haul clause.

The division's report embraced Fourth Section Application No. 15200, the title case, and related proceedings. They were among the cases which the commission reopened by an order of August 6, 1947, that called upon the railroads to show cause why fourth-section relief granted because of water competition should not be vacated. While the fourth-section relief specifically involved in the present cases has been in effect since January, 1946, the division's report noted that "the all-rail adjustment on anthracite to New England has contained rates that were lower to coastal points than to interior destinations since as early as 1908."

The division's decision to vacate was based on this general finding:

"The facts of record. . . including the changed relations in transportation charges of the competing groups of carriers, the methods by which the traffic has moved and now moves, and the superiority, generally recognized, of all-rail service over rail-barge service, warrant

the conclusion that the all-rail rates to water-competitive points are lower than necessary to meet existing competition by the rail-barge carriers, and that such carrier competition or the threat thereof is not now such as to constitute a special case justifying a grant of continuing fourth-section relief.

CAR SERVICE

The Car Service Division, Association of American Railroads, has liberalized Special Car Order No. 56 to permit loading in home route of the western-owned box cars covered by the order. The order is designed to expedite the return of western cars from the East. As originally issued, effective April 12, it applied to cars owned by 11 western roads and prohibited all loading of such cars in the East.

The liberalization came in Supplement No. 2, effective April 29, which reduces the number of beneficiary western roads to six, and permits loading of their box cars to Chicago, Milwaukee, Wis., St. Louis, Mo., Memphis, Tenn., New Orleans, La., or west thereof. It also stipulates that involved western cars, which become empty in the territory on or east of a line drawn from Buffalo, N. Y., through Pittsburgh, Pa., Grafton, W. Va., thence to the Potomac river, may be loaded to any station west of that line.

Meanwhile, the order prohibits the six western roads from sending eastern-owned box cars home empty. It requires them to "apply such cars on loading in accordance with Car Service Rules"; and to call upon C.S.D. for disposition instructions if such cars "develop beyond ability to utilize."

The original form of the order had caused eastern shippers some concern which was expressed at the recent Roanoke, Va., meeting of the Atlantic States Shippers' Advisory Board (see *Railway Age* of April 22, page 72).

EQUIPMENT AND SUPPLIES

Equipment on Order

Class I railroads and railroad-owned and controlled refrigerator car lines had 28,765 new freight cars on order April 1, according to the Association of American Railroads. The comparable figure for April 1, 1949, was 67,505 cars, but the A.A.R. statement featured the orders placed during this year's first three months for 20,725 new freight cars—"nearly four times as many as were ordered in the same period in 1949."

Likewise, it was noted that more new Diesel-electric locomotives were ordered

by Class I roads in this year's first quarter than in the like 1949 period—685 as compared with 198. Locomotives on order April 1 by Class I roads totaled 1,099, including 1,084 Diesel-electrics, 11 steam, and 4 electrics. On April 1, 1949, there were on order 1,322 locomotives, including 1,283 Diesel-electrics, 35 steam, and 4 electrics.

The A.A.R. statement also mentioned "extensive car repair programs" which the railroads have inaugurated "as a further step toward increasing the available freight car supply to take care of increased traffic." These programs have "already resulted in restoring to service 13,000 cars which were in unserviceable condition two months ago," the statement added.

The 28,765 freight cars on order April 1 by the Class I roads and their car-line affiliates included 17,590 to be built in railroad shops, and 11,175 on order from contract builders. The breakdown by types of cars was: Box, 16,369, including 15,869 general-service cars and 500 to be equipped for special commodity loading; gondolas, 4,428; open-top hoppers, 3,249; covered hoppers, 1,935; refrigerator, 2,004; stock, 500; flat, 280.

Freight cars placed in service during this year's first three months totaled 6,328. New locomotives installed during the same period totaled 484, including 482 Diesel-electrics and 2 steam.

LOCOMOTIVES

The Southern has ordered 40 Diesel-electric locomotive units costing approximately \$6,500,000. Included in the order were 16 1,600-hp. road-switching and 24 1,500-hp. freight and passenger road units. The order was divided among the Electro-Motive Division of General Motors Corporation, the American Locomotive-General Electric Companies and Fairbanks, Morse & Co.

SUPPLY TRADE

Pullman, Inc., Sales Were \$234,646,050 Last Year

Consolidated gross revenues from sales of products and services of Pullman, Inc., declined to \$234,646,050 in 1949 from the record high peacetime level of \$285,958,534 in the preceding year, according to the recently released annual report. Consolidated net income in 1949 was \$5,496,834, compared with \$8,152,083. The 16,259 freight cars delivered by the subsidiary Pullman-Standard Car Manufacturing Company last year were 45 per cent below the 1948 output of 29,280 cars. Orders were received in 1949 for 2,235 freight cars, compared with 22,040. Pullman-Standard's deliveries of passenger-train cars reached a new postwar high of 534 units, including 310 sleeping cars.

Purchases of freight-train cars in the

first quarter fell short of expectations. Champ Carry, president, said in the report. Pullman-Standard, however, has sufficient orders to reopen two of its three freight-car plants as soon as necessary carbuilding materials can be assembled, he added. Unfilled orders for about 400 passenger-train cars will sustain production of such equipment through the greater part of 1950.

Lawrence C. McGee has been appointed national railroad sales manager for the R. W. Neill Company, communication equipment manufacturers and engineers, at Chicago, to coordinate railroad sales activities, and act as an equipment con-



Lawrence C. McGee

sultant in the field. Mr. McGee entered the electronic industry in 1935 after leaving college, and has worked in all phases of service, production and sales in the audio field. His experience includes service as an area representative and in sales managerial positions.

Robert M. Buddington, assistant to manager of sales, sheet and stripping division, of Inland Steel Company, has been advanced to assistant manager of sales of that division, effective May 15, succeeding William P. Burke, resigned.

T. A. Stewart, Jr., formerly in charge of service activities for Vapor Heating Corporation at Portland, Ore., has been transferred to St. Paul, Minn., where he will have charge of service activities for territory comprising Minnesota, Iowa, Wisconsin, North Dakota, South Dakota, Montana, Idaho and eastern Washington. He is succeeded at Portland by C. J. Mulvena.

Lawrence J. Kline has been appointed sales manager of the Automatic division of the Automatic Transportation Company, Chicago, to direct sales activities for Automatic and Skylift trucks. Mr. Kline was formerly executive vice-president of the Mercury Manufacturing Company, Chicago.

The Plymouth locomotive works division of the Fate-Root-Heath Company, Plymouth, Ohio, has appointed Robert H. Schleuning, Pittsburgh, Pa., as sales rep-

representative for switching locomotives and other products in western Pennsylvania and New York, northern West Virginia and parts of Ohio and Maryland. Mr. Schleuning formerly was associated with the Pressed Steel Car Company for almost 16 years.

The **Metal & Thermit Corporation** has moved its general offices from 120 Broadway, New York, to 100 East 42nd street, New York 17.

The **Hyster Company** has appointed two new district managers of lift truck, turret truck, straddle truck and mobile crane sales. **D. Stearns** will handle sales in Pennsylvania, New Jersey, Virginia, West Virginia and the District of Columbia, while **W. M. Costley** will be in charge of territory comprising Minnesota, Wisconsin, northern Illinois, Iowa, eastern Nebraska, North and South Dakota, and eastern Montana. Mr. Costley formerly was regional sales supervisor in the Chicago area for the Clark Equipment Company.

Edmond J. Hagan has been appointed sales representative for the press and power tool department of the **Baldwin Locomotive Works**. Mr. Hagan will cover northern New Jersey, New York, and New England, with headquarters at the New York district sales office.

T. E. Sansom and **G. R. Odom** have been appointed district representatives for the **General Electric Company**, with responsibility for sale of radio communication equipment. Mr. Sansom, with headquarters at 106 West 14th street, Kansas City, Mo., will cover the west central district, and Mr. Odom, with headquarters at 806 15th street, N.W., Washington, D. C., the Atlantic district, including Washington, Baltimore, Md., Richmond, Va., Norfolk and Roanoke.

ABANDONMENTS

Applications have been filed with the I.C.C. by:

East Tennessee & Western North Carolina.—To abandon its narrow-gage (3 ft.) line between O'Brien, Tenn., and Cranberry, N. C., 22.6 mi.

Grand Trunk Western.—To abandon approximately 18.3 mi. between Cass City, Mich., and Bad Axe. The road said in its application that business over the line is being conducted "at a substantial loss."

Division 4 of the I.C.C. has authorized:

Chicago Great Western.—To abandon 4.5 mi. of branch line from a point near Waverly, Iowa, to Bremer. Operations over the line were discontinued November 9, 1946.

Madison, Illinois & St. Louis.—To abandon approximately 653 feet of track in Venice, Ill. The line, which serves the Union Electric Power Company, is operated by the Terminal Railroad Asso-

ciation of St. Louis. The power company is to purchase the segment for use as a private switch track.

Ontario Car Ferry.—To abandon its car-ferry operations between Rochester, N. Y., and Cobourg, Ont., approximately 63 mi. The commission's report, which pertained to that portion of the operation within the United States, said the ferry company is owned jointly by the Baltimore & Ohio and the Canadian National. The two roads also operate an all-rail route via the Niagara gateway. The report said the volume of freight transported by the ferry has decreased about 50 per cent since 1945.

Seaboard Air Line.—To abandon 3.2 mi. of branch line between Terra Ceia Junction, Fla., and Fletchers.

Virginia & Truckee.—To abandon its entire line, approximately 46.5 mi., between Reno, Nev., and Minden. Division 4, in authorizing the abandonment, followed recommendations made by Examiner Paul C. Albus in a recent proposed report (See *Railway Age* of March 11, page 104). The present report called attention to the poor state of maintenance of the road, the extensive need for rehabilitation, the continuing annual deficits, and the fact that there was no evidence pointing toward a "substantial improvement" in future traffic.

ORGANIZATIONS

F.R.P. to Present Annual Awards At Washington Dinner

The Federation for Railway Progress will hold its third annual dinner and present its annual awards to the railway industry at the Mayflower Hotel, Washington, D. C., on May 18, at 7:30 p.m., Thomas J. Deegan, Jr., president of the federation, has announced. The program will feature addresses on competitive transportation by government leaders and officials of labor and industry.

Robert R. Young, founder and chairman of the F.R.P., will present a bronze plaque to a railroad for outstanding achievement in progressive passenger service in 1949; an award to the railroad employee who has rendered outstanding service to the traveling public during the past year, and a third award to the newspaper writer judged to have done the best consistent writing on railroad subjects.

The **Chicago Chapter** of the **National Defense Transportation Association** has picked the following railroad men as officers for the ensuing year: President, E. E. Foulks, superintendent of transportation, Atchison, Topeka & Santa Fe; vice-president, A. V. Marxen, former assistant general agent, passenger department, Chicago, Milwaukee, St. Paul & Pacific, and secretary-treasurer, W. F. Coyne, assistant to passenger traffic manager, Southern Pacific. Directors include John L. Bickley, general passenger agent,

Grand Trunk-Canadian National; C. W. Jernigan, general agent, passenger department, Chicago, Rock Island & Pacific, and Earl B. Padrick, chairman, Trans-continental and Western Passenger Associations.

The **Detroit Chapter** of the **Railway Business Women's Association** has recently appointed officers for 1950-51, as follows: President, Rosa Tasso, Railway Express Agency; vice-president, Bessie Neeley, New York Central; recording secretary, Edna Hawkinson, Pacific Fruit Express; corresponding secretary, Grace Butler, Grand Trunk Western; treasurer, Amy Madden, N.Y.C.

The **Connecticut Valley Chapter, National Railway Historical Society**, will hold a railfan excursion on May 21, to Poughkeepsie, N. Y., and Middletown, via the New York, New Haven & Hartford's main freight line. The **Midwest Chapter** of the same society, in cooperation with the Baltimore & Ohio, will operate a trip on May 28, starting at Canton, Ohio, and going to Lorain, via Akron, Warwick, Sterling, Lester and Elyria. Inspection of the B. & O.'s most modern coal dumper, and of ore handling facilities at Lorain, will be the main feature of this trip.

FINANCIAL

Central of Georgia.—*Control of Savannah & Atlanta.*—This road has asked the I.C.C. to authorize the Empire Land Company, its subsidiary, to purchase the Port Wentworth Corporation and thereby acquire control of the 140-mi. S.&A. Port Wentworth owns all the common stock and a majority of the preferred stock of the S.&A., and purchase of Port Wentworth by Empire would bring control of the S.&A. to the land company. The C. of G. in turn owns all capital stock of the land company.

The proposed transaction would involve \$3,500,000. To help provide this amount, the Central filed another application with the I.C.C., asking permission to issue a promissory note for \$2,500,000 to the Reconstruction Finance Corporation. This note would be for 10 years and bear interest at 4 per cent. The application said the road already has a commitment from R.F.C. for this loan.

With the proceeds of this R.F.C. loan, plus other cash, the Central would lend \$3,300,000 to Empire for purchase of Port Wentworth for \$3,246,300, and purchase of an additional 1,537 shares of S.&A. preferred for \$153,700. Another part of the transaction involves purchase by Central of 2,000 shares of Empire stock for \$200,000.

Both the Port Wentworth Corporation and the additional 1,537 shares of S.&A. preferred are owned or controlled by R. M. Nelson. In addition to acquiring control of the S.&A. properties from Mr. Nelson, the land company would acquire

ANNUAL REPORTS

Railroad		Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Ann Arbor	1949	\$7,642,142	\$6,333,128	\$226,722	\$292,419	\$3,792,063	\$1,141,536	\$5,456,156
	1948	8,914,588	6,877,826	237,499	716,275	4,601,915	1,554,703	5,724,151
Bangor & Aroostook	1949	12,996,823	9,166,052	586,625	1,303,335	4,205,760	2,034,170	15,885,639
	1948	15,539,748	10,095,139	557,273	2,384,235	7,002,363	4,120,504	16,616,399
Boston & Maine	1949	82,238,980	67,091,572	3,394,756	159,127	28,378,393	16,313,072	99,919,002
	1948	94,165,928	73,742,349	3,445,204	3,342,411	30,964,112	16,841,703	100,833,792
Chicago & Eastern Illinois	1949	27,812,088	23,622,072	827,000	Nil	7,191,246	5,541,759	30,167,127
	1948	32,625,027	26,716,935	664,993	779,407	10,592,983	7,062,705	29,596,060
Chicago & Western Indiana ..	1949	†	†	2,671,331	30,199d	4,355,860	3,503,483	80,963,017
	1948	†	†	2,700,887	10,638d	4,158,702	2,935,769	80,007,145
Detroit, Toledo & Ironton	1949	15,049,254	9,570,873	357,600	2,495,520	6,402,192	3,630,168	13,396,082
	1948	15,917,636	9,103,059	327,924	3,522,549	6,373,639	4,215,108	13,501,895
Duluth, South Shore & Atlantic#	1949	5,693,628	5,721,681	22,013	542,186d	2,955,195	991,529	6,761,272
	1948	6,587,019	5,316,774	4,937	597,600	.....	.....	.....
Elgin, Joliet & Eastern	1949	41,821,213	27,332,662	654,747	5,558,083	16,418,672	14,554,919	18,084,000
	1948	46,307,238	28,358,287	615,425	7,502,569	18,552,895	17,406,585	19,070,000
Illinois Terminal	1949	11,699,695	9,050,425	566,520	707,242	3,753,966	2,983,961	15,465,920
	1948	13,374,067	9,223,570	556,401	1,399,681	5,302,746	4,351,072	16,002,607
Indianapolis Union	1949	634,831	3,254,867	202,351	191,405	1,569,925	961,108	5,979,000
	1948	612,322	3,198,553	206,506	184,820	1,900,293	977,478	6,132,000
Maine Central	1949	24,157,738	18,938,165	1,285,446	1,037,239	6,979,237	4,476,881	26,778,777
	1948	26,761,589	21,060,573	1,253,104	1,378,200	7,790,984	5,245,691	26,942,075
Minneapolis, St. Paul & Sault Ste. Marie	1949	35,430,968	29,638,872	5,288	1,148,481	17,974,938	8,209,826	21,295,400
	1948	37,010,433	30,469,055	3,313d	1,770,421	22,534,970	9,670,241	21,515,000
New York, Ontario & Western	1949	6,768,399	6,167,546	1,517,801	2,173,909d	1,250,373	7,294,622	38,946,840
	1948	7,957,497	7,434,554	1,493,565	2,333,736d	1,171,619	6,562,507	39,058,707
Norfolk & Western	1949	148,946,972	114,043,855	1,939,897	20,931,286	68,166,728	27,384,103	44,389,731
	1948	185,539,356	125,203,552	1,902,766	38,877,032	90,190,533	44,743,594	63,930,205
Rutland	1949	5,449,215	5,081,352	401,271	855,260d	1,530,623	720,439	9,216,000
	1948	6,288,661	5,842,420	401,769	362,591d	1,914,384	763,197	9,216,000
Texas & Pacific	1949	62,440,728	48,423,551	2,829,978	4,955,971	25,778,667	10,982,179	67,025,623
	1948	77,990,776	57,934,325	2,843,997	7,021,134	30,179,515	14,362,950	63,930,205
Toronto, Hamilton & Buffalo ..	1949	4,947,227	3,195,238	76,541	1,054,896	2,967,381	1,369,004	3,000,000
	1948	4,863,423	2,920,318	43,173	1,243,592	2,855,266	1,599,615	1,200,000
Virginian	1949	29,208,704	19,962,387	2,168,346	3,501,617	14,216,944	8,802,409	73,698,696
	1948	38,097,608	23,623,958	1,896,499	6,968,497	22,001,261	11,764,752	70,734,726

*On December 31.

†Absorbed by joint facility account.

dDeficit.

#Reorganization of two predecessor companies—the Duluth, South Shore & Atlantic and the Mineral Range—consummated on November 1, 1949. Figures for 1949 include those for both predecessors and 1949 figures include those for both predecessors before November 1, 1949, and for present company after that date. Fixed charges exclude interest accrued but not paid before November 1, 1949, on predecessors' bonds, notes and advances.

real estate valued at approximately \$1,136,614. Part of this real estate is owned by Port Wentworth, while the rest is separately owned by Mr. Nelson and would be purchased for \$100,000. The application noted that this property is suitable for both residential and industrial development.

Gulf, Mobile & Ohio.—Acquisition.—This road has applied to the I.C.C. for authority to acquire the 33-mi. Joliet & Chicago in a move to liquidate the separate corporate structure of the latter. The G.M.&O. has stock control of the J.&C. and operates the property under a perpetual lease. The application said dissolution of the J.&C. will effect economies in administration and simplify the corporate structure of the G.M.&O.

New York, Ontario & Western.—Trackage Rights.—Division 4 of the I.C.C. has authorized modification of an existing trackage rights agreement between this road and the Delaware, Lackawanna & Western. The present agreement permits the N.Y.O.&W. to operate two freight

trains daily in each direction over the Lackawanna's tracks between Cayuga Junction, Pa., and Pittston Junction, approximately 10.3 mi. The modified agreement will change only the rental paid by the N.Y.O.&W., raising such rental from \$1.50 to \$2.25 per train mile.

St. Louis Southwestern.—Lease of Subsidiary.—Division 4 of the I.C.C. has approved the lease by this road of the properties of its subsidiary, the Paragould Southeastern. The lease is to be effective as of January 1 and to continue until July 1, 1990, unless terminated by either party on 90-days notice. It is tantamount to renewal of a previous lease which expired January 1, 1944, the commission explained, adding that it merely extends existing arrangements which are the same as those prevailing under the old lease.

Western Maryland.—Recapitalization Proposed.—E. S. Williams, president, told stockholders of this company on April 19 that representatives of large blocks of stock have been asked to agree on a ten-

tative plan of recapitalization to eliminate dividend arrears of about 140 per cent on the first preferred stock. As soon as agreement is reached the plan will be submitted to all stockholders before submission to the I.C.C.

New Securities

Division 4 of the I.C.C. has authorized:

Pennsylvania.—To assume liability for \$10,110,000 of series Z equipment trust certificates, the first installment of a proposed \$20,115,000 issue. The entire issue will finance in part 91 Diesel-electric locomotives, 19 passenger-train cars, and 1,700 freight cars, costing an estimated \$25,145,500. (See *Railway Age* of April 1, page 76.) The present certificates will be applied against the initial deliveries of this equipment — 46 locomotives, 13 passenger-train cars, and 800 gondolas. The series Z certificates will be dated April 1, and the certificates being issued at present will mature in 15 annual installments of \$674,000 each, beginning April 1, 1951. The commission's report approved a selling price of 99.006 with interest at 2 ¼ per cent, making the average annual cost of the proceeds approxi-

UNION PACIFIC RAILROAD COMPANY

Fifty-Third Annual Report—Year Ended December 31, 1949.

TO THE STOCKHOLDERS OF UNION PACIFIC RAILROAD COMPANY:

The Board of Directors submits the following report for the year ended December 31, 1949, for Union Pacific Railroad Company, including Oregon Short Line Railroad Company, Oregon-Washington Railroad & Navigation Company, Los Angeles & Salt Lake Railroad Company and The St. Joseph and Grand Island Railway Company, whose properties are leased to Union Pacific Railroad Company. The lessor companies have certain income and charges, and the figures in the Income Account, other than those relating to transportation operations, and in the Surplus Account and General Balance Sheet and tabulations and tables relating thereto are stated on a consolidated basis, *excluding offsetting accounts between companies.*

INCOME.

	1949.	1948.	INCREASE.	DECREASE.
Transportation Operations.				
Operating revenues.....	\$398,823,082.46	\$437,583,131.76		\$38,760,049.30
Operating expenses.....	317,922,665.16	321,403,215.52		3,480,550.36
Revenues over expenses.....	\$80,900,417.30	\$116,179,916.24		\$35,279,498.94
Taxes.....	42,729,224.49	59,998,483.29		17,269,258.80
Railway Operating Income				
Rents from use of joint tracks, yards, and terminal facilities.....	\$38,171,192.81	\$56,181,432.95		\$18,010,240.14
	1,899,665.37	1,847,718.31	\$51,947.06	
	\$40,070,858.18	\$58,029,151.26		\$17,958,293.08
Hire of equipment—debit balance.....	\$15,023,681.89	\$12,767,594.14	\$2,256,087.75	
Rents for use of joint tracks, yards, and terminal facilities.....	3,339,739.22	3,285,924.75	53,814.47	
	\$18,363,421.11	\$16,053,518.89	\$2,309,902.22	
Net Income from Transportation Operations.....	\$21,707,437.07	\$41,975,632.37		\$20,268,195.30
Income from Investments and Sources other than Transportation Operations.				
Income from oil and gas operations—net†.....	\$27,140,327.31	\$26,540,409.12	\$599,918.19	
Dividends on stocks owned.....	3,736,240.75	2,711,350.50	1,024,890.25	
Interest on bonds and notes owned.....	1,978,590.40	2,124,657.19		\$146,066.79
Other interest income.....	141,386.83	139,616.35	1,770.48	
Rents from lease of road and equipment.....	265,799.45	255,503.73	10,295.72	
Miscellaneous rents.....	510,606.10	513,938.07		3,331.97
Miscellaneous income.....	977,981.47	54,333.13	923,648.34	
Total.....	\$34,750,932.31	\$32,339,808.09	\$2,411,124.22	
Total Income.....	\$56,458,369.38	\$74,315,440.46		\$17,857,071.08
Fixed and Other Charges.				
Interest on funded debt.....	\$5,766,477.96	\$5,946,176.08		\$179,698.12
Interest on unfunded debt.....	388,104.63	382,331.18	\$5,773.45	
Miscellaneous rents.....	27,178.81	27,884.11		705.30
Miscellaneous charges.....	686,881.22	669,456.30	17,424.92	
Total.....	\$6,868,642.62	\$7,025,847.67		\$157,205.05
Net Income from All Sources.....	\$49,589,726.76	\$67,289,592.79		\$17,699,866.03
Released from "Reserve against possible refunds on U. S. Government shipments".....	104,811.71	164,730.97		59,919.26
Total for Disposition.....	\$49,694,538.47	\$67,454,323.76		\$17,759,785.29

DISPOSITION.

Dividends on Stock of Union Pacific Railroad Co.:				
Preferred stock:				
2 per cent paid April 1, 1949.....	\$1,990,862.00			
2 per cent paid October 1, 1949.....	1,990,862.00	\$3,981,724.00	\$3,981,724.00	
Common stock:				
2½ per cent paid April 1, 1949.....	\$5,557,275.00			
2½ per cent paid July 1, 1949.....	5,557,275.00			
2½ per cent paid October 1, 1949.....	5,557,275.00			
2½ per cent payable January 3, 1950.....	5,557,275.00	22,229,100.00	26,674,920.00	\$4,445,820.00
Total Dividends.....	\$26,210,824.00	\$30,656,644.00		\$4,445,820.00
Transferred to Earned Surplus—Unappropriated.....	\$23,483,714.47	\$36,797,679.76		\$13,313,965.29
† Excludes Federal income taxes.				

Operating results for year 1949 compared with year 1948:

	1949.	1948.	INCREASE.	DECREASE.	PER CENT.
Average miles of road operated.....	9,724.78	9,751.91		27.13	.3
Operating Revenues.					
Freight.....	\$332,654,719.33	\$359,724,653.06		\$27,069,933.73	7.5
Passenger.....	32,400,922.69	42,369,214.94		9,968,292.25	23.5
Mail.....	13,463,136.65	12,501,509.49	\$961,627.16		7.7
Express.....	4,720,146.97	5,735,702.67		1,015,555.70	17.7
Other passenger-train.....	5,568,564.19	7,149,236.34		1,580,672.15	22.1
Switching.....	4,298,953.41	3,652,444.78	646,508.63		17.7
Other.....	5,716,639.22	6,450,370.48		733,731.26	11.4
Total operating revenues.....	\$398,823,082.46	\$437,583,131.76		\$38,760,049.30	8.9
Operating Expenses.					
*Maintenance of way and structures.....	\$63,410,805.26	\$60,680,925.70	\$2,729,879.56		4.5
*Maintenance of equipment.....	73,337,288.64	72,865,946.49	471,342.15		.6
Total maintenance.....	\$136,748,093.90	\$133,546,872.19	\$3,201,221.71		2.4
Traffic.....	9,118,499.77	9,333,131.80		\$214,632.03	2.3
Transportation.....	148,980,346.01	154,397,878.83		5,417,532.82	3.5

[Advertisement]

	1949.	1948.	INCREASE.	DECREASE.	PER CENT.
Miscellaneous operations.....	11,858,598.30	13,112,488.13	.....	1,253,889.83	9.6
General.....	11,217,127.18	11,012,844.57	204,282.61	.....	1.9
Total operating expenses.....	\$317,922,665.16	\$321,403,215.52	.....	\$3,480,550.36	1.1
Revenues over Expenses.....	\$80,900,417.30	\$116,179,916.24	.....	\$35,279,498.94	30.4
Taxes.					
State and county.....	\$16,187,349.50	\$14,971,732.00	\$1,215,617.50	.....	8.1
Federal income.....	\$15,843,909.83	\$34,840,293.00	.....	\$18,996,383.17	54.5
Federal unemployment insurance.....	810,212.42	801,145.21	\$9,067.21	.....	1.1
Federal retirement.....	9,776,899.89	9,302,092.38	474,807.51	.....	5.1
Other federal.....	110,852.85	83,220.70	27,632.15	.....	33.2
Total federal.....	\$26,541,874.99	\$45,026,751.29	.....	\$18,484,876.30	41.1
Total taxes.....	\$42,729,224.49	\$59,998,483.29	.....	\$17,269,258.80	28.8
Railway Operating Income.....	\$38,171,192.81	\$56,181,432.95	.....	\$18,010,240.14	32.1
Equipment rents (debit).....	15,023,681.89	12,767,594.14	\$2,256,087.75	.....	17.7
Joint facility rents (debit).....	1,440,073.85	1,438,206.44	1,867.41	.....	0.1
Net Railway Operating Income.....	\$21,707,437.07	\$41,975,632.37	.....	\$20,268,195.30	48.3
Per cent—Operating expenses of operating revenues.....	79.72	73.45	6.27	.....	8.5
FREIGHT TRAFFIC. (Commercial Freight only)					
Tons of revenue freight carried.....	47,082,024	52,156,787	.....	5,074,763	9.7
Ton-miles, revenue freight.....	25,918,650.763	29,167,846.419	.....	3,249,195.656	11.1
Average distance hauled per ton (miles).....	550.50	559.23	.....	8.73	1.6
Average revenue per ton-mile (cents).....	1.283	1.233	.050	.....	4.1
Average revenue per freight-train mile.....	\$12.72	\$12.93	.....	\$.21	1.6
PASSENGER TRAFFIC.					
Revenue passengers carried.....	2,319,752	2,624,444	.....	304,692	11.6
Revenue passengers carried one mile.....	1,431,213.703	1,774,949.510	.....	343,735.807	19.4
Average distance hauled per passenger (miles).....	616.97	676.31	.....	59.34	8.8
Average passengers per passenger-train mile.....	92.38	109.10	.....	16.72	15.3
Average revenue per passenger-mile (cents).....	2.264	2.387	.....	.123	5.2
Average revenue per passenger-train mile, passengers only.....	\$2.09	\$2.60	.....	\$.51	19.6
Average total revenue per passenger-train mile.....	\$3.25	\$3.79	.....	\$.54	14.2
*Include depreciation, amortization and retirement charges:					
Maintenance of way and structures.....	\$6,268,468.45	\$6,460,560.90	.....	\$192,092.45	
Maintenance of equipment.....	14,226,194.98	12,456,540.92	\$1,769,654.06	.....

Expenditures chargeable to investment in Road and Equipment Property:

Additions and Betterments (excluding equipment).....	\$14,242,970.51
Equipment.....	23,342,922.90
Total Expenditures.....	\$37,585,893.41
Credits to investment in Road and Equipment Property:	
Cost of road property retired and not replaced.....	\$ 3,118,147.88
Cost of equipment retired.....	7,595,220.51
Total Credits.....	\$10,713,368.39
Net increase in investment in "Road and Equipment Property".....	\$26,872,525.02

General Balance Sheet—Assets.

	December 31, 1949.	December 31, 1948.	INCREASE.	DECREASE.
Investments:				
ROAD AND EQUIPMENT.....	\$1,187,016,250.25	\$1,160,143,725.23	\$26,872,525.02	
Less:				
Receipts from improvement and equipment fund.....	\$23,823,091.13	\$23,823,091.13		
Appropriations from income and surplus prior to July 1, 1907, credited to this account.....	13,310,236.52	13,310,236.52		
Total.....	\$37,133,327.65	\$37,133,327.65		
Road and equipment property.....	\$1,149,882,922.60	\$1,123,010,397.58	\$26,872,525.02	
DONATIONS AND GRANTS (Credit).....	\$13,928,530.73	\$12,139,823.29	\$1,788,707.44	
RESERVE FOR DEPRECIATION—ROAD AND EQUIPMENT (Credit).....	\$186,235,706.84	\$177,300,386.33	\$8,935,320.51	
RESERVE FOR AMORTIZATION OF NATIONAL DEFENSE PROJECTS (Credit).....	\$58,691,830.71	\$58,481,517.12	\$210,313.59	
SINKING FUNDS.....	\$726.25	\$307.50	\$418.75	
CAPITAL AND OTHER RESERVE FUNDS.....	\$9,234.88	\$9,078.55	\$156.33	
MISCELLANEOUS PHYSICAL PROPERTY.....	\$34,360,770.68	\$31,827,411.94	\$2,533,358.74	
RESERVE FOR DEPRECIATION—MISCELLANEOUS PHYSICAL PROPERTY (Credit).....	\$16,844,176.11	\$15,467,041.65	\$1,377,134.46	
Investments in affiliated companies:				
Stocks.....	\$20,308,013.24	\$20,308,013.24		
Notes.....	307,782.14	321,402.14		\$13,620.00
Advances.....	8,163,685.32	8,463,608.98		299,923.66
Total.....	\$28,779,480.70	\$29,093,024.36		\$313,543.66
Other Investments:				
Stock.....	\$64,048,875.42	\$64,048,872.42	\$3.00	
Bonds and notes.....	24,040,747.01	23,055,404.79	985,342.22	
Total.....	\$88,089,622.43	\$87,104,277.21	\$985,345.22	
RESERVE FOR ADJUSTMENT OF INVESTMENTS IN SECURITIES (Credit).....	\$33,832,829.01	\$33,842,953.87		\$10,124.86
Total Investments.....	\$991,589,684.14	\$973,812,774.88	\$17,776,909.26	

[Advertisement]

	December 31, 1949.	December 31, 1948.	INCREASE.	DECREASE.
Current Assets:				
CASH.....	\$48,092,933.78	\$32,917,116.72	\$15,175,817.06	
TEMPORARY CASH INVESTMENTS (U. S. Government securities).....	57,087,916.66	86,640,024.00		\$29,552,107.34
SPECIAL DEPOSITS.....	244,566.50	397,085.82		152,519.32
LOANS AND BILLS RECEIVABLE.....	359.01	524,339.48		523,980.47
TRAFFIC AND CAR-SERVICE BALANCES—NET.....	10,109,331.15	10,324,099.16		214,768.01
NET BALANCE RECEIVABLE FROM AGENTS AND CONDUCTORS.....	4,309,313.20	3,992,815.99	316,497.21	
MISCELLANEOUS ACCOUNTS RECEIVABLE.....	13,268,892.99	16,362,179.64		3,093,286.65
MATERIAL AND SUPPLIES.....	35,317,424.06	41,592,665.99		6,275,241.93
INTEREST AND DIVIDENDS RECEIVABLE.....	487,714.22	548,227.83		60,513.61
ACCRUED ACCOUNTS RECEIVABLE.....	11,944,114.40	12,111,549.30		167,434.90
OTHER CURRENT ASSETS:				
Baltimore and Ohio Railroad Co. capital stock applicable to payment of extra dividend of 1914.....	105,485.30	105,841.30		356.00
Miscellaneous items.....	171,334.14	2,983,909.32		2,812,575.18
Total Current Assets.....	\$181,139,385.41	\$208,499,854.55		\$27,360,469.14
Deferred Assets:				
WORKING FUND ADVANCES.....	\$123,337.51	\$115,177.50	\$8,160.01	
OTHER DEFERRED ASSETS.....	2,767,860.01	3,396,700.14		\$628,840.13
Total Deferred Assets.....	\$2,891,197.52	\$3,511,877.64		\$620,680.12
Unadjusted Debits:				
PREPAYMENTS.....	\$880.72	\$2,001.36		\$1,120.64
OTHER UNADJUSTED DEBITS.....	1,474,027.45	1,578,542.32		104,514.87
Total Unadjusted Debits.....	\$1,474,908.17	\$1,580,543.68		\$105,635.51
Grand Total.....	\$1,177,095,175.24	\$1,187,405,050.75		\$10,309,875.51

General Balance Sheet—Liabilities.

	December 31, 1949.	December 31, 1948.	INCREASE.	DECREASE.
Capital Stock:				
Common stock.....	\$222,302,500.00	\$222,302,500.00		
Preferred stock.....	99,591,580.79	99,591,580.79		
Total Capital Stock.....	\$321,894,080.79	\$321,894,080.79		
Funded Debt.....	225,991,778.07	237,508,750.44		\$11,516,972.37
Total Capital Stock and Funded Debt.....	\$547,885,858.86	\$559,402,831.23		\$11,516,972.37
Due to Affiliated Companies.....	\$9,218,605.81	\$7,208,328.55	\$2,010,277.26	
Current Liabilities:				
AUDITED ACCOUNTS AND WAGES PAYABLE.....	\$20,935,670.41	\$23,938,299.50		\$3,002,629.09
MISCELLANEOUS ACCOUNTS PAYABLE.....	4,260,869.48	4,555,979.87		295,110.39
INTEREST MATURED UNPAID (including interest due first proximo).....	253,779.63	401,906.40		148,126.77
DIVIDENDS MATURED UNPAID:				
Dividends due but uncalled for.....	267,660.33	270,250.67		2,590.34
Extra dividend on common stock declared January 8, 1914, payable to stockholders of record March 2, 1914, unpaid.....	113,799.39	114,161.44		362.05
Dividend on common stock payable third proximo.....	5,557,275.00	10,003,095.00		4,445,820.00
UNMATURED INTEREST ACCRUED.....	1,626,873.61	1,650,605.70		23,732.09
ACCRUED ACCOUNTS PAYABLE.....	14,680,647.43	10,618,702.91	\$4,061,944.52	
TAXES ACCRUED.....	35,378,707.15	54,070,355.14		18,691,647.99
OTHER CURRENT LIABILITIES.....	1,996,034.26	3,323,120.50		1,327,086.24
Total Current Liabilities.....	\$85,071,316.69	\$108,946,477.13		\$23,875,160.44
Deferred Liabilities.....	\$7,714,341.63	\$7,974,486.55		\$260,144.92
Unadjusted Credits:				
PREMIUM ON FUNDED DEBT.....	\$4,477,387.15	\$4,700,655.68		\$223,268.53
RESERVE FOR FIRE INSURANCE.....	17,828,709.77	16,810,283.38	\$1,018,426.39	
RESERVE FOR DEPRECIATION—LEASED PROPERTY.....	6,517.99	5,899.53	618.46	
OTHER UNADJUSTED CREDITS.....	2,270,459.74	3,840,833.60		1,570,373.86
Total Unadjusted Credits.....	\$24,583,074.65	\$25,357,672.19		\$774,597.54
Total Liabilities.....	\$674,473,197.64	\$708,889,795.65		\$34,416,598.01
Surplus:				
UNEARNED SURPLUS.....	\$270,840.24	\$270,677.72	\$162.52	
EARNED SURPLUS—APPROPRIATED:				
Additions and betterments.....	\$28,522,352.23	\$28,522,352.23		
Funded debt retired through income and surplus.....	6,730,647.41	5,526,341.16	\$1,204,306.25	
Sinking fund reserves.....	726.25	307.50	418.75	
Reserve against possible refunds on U. S. Government shipments ..	1,924,630.30	2,029,442.01		\$104,811.71
Total Earned Surplus—Appropriated.....	\$37,178,356.19	\$36,078,442.90	\$1,099,913.29	
Earned Surplus—Unappropriated.....	\$425,588,233.93	\$402,581,587.24	\$23,006,646.69	
Total Earned Surplus.....	\$462,766,590.12	\$438,660,030.14	\$24,106,559.98	
Total Surplus.....	\$463,037,430.36	\$438,930,707.86	\$24,106,722.50	

As this consolidated balance sheet excludes all intercompany items, securities of the Los Angeles & Salt Lake Railroad Company and The St. Joseph and Grand Island Railway Company owned by other System companies are not included. The difference between the par and face value of such securities as carried on the books of the issuing companies (less unextinguished discount on the bonds and discount charged to Earned Surplus—Unappropriated but added back in consolidating the accounts) and the amounts at which the securities are carried on the books of the owning companies is set up here to balance.....

	\$39,584,547.24	\$39,584,547.24		
Grand Total.....	\$1,177,095,175.24	\$1,187,405,050.75		\$10,309,875.51

[Advertisement]

mately 2.41 per cent. Successful bid for this first installment was made by Harri-man, Ripley & Co. and Lehman Brothers and 3 associates. The certificates were re-offered to the public at prices yielding from 1.45 to 2.55 per cent, according to maturity.

Reading.—To assume liability for \$3,810,000 of series R equipment trust cer-tificates to finance in part 30 Diesel-electric locomotives costing an estimated \$4,897,122. (See *Railway Age* of April 8, page 63.) The certificates, to be dated April 15, will mature in 30 semiannual installments of \$127,000 each, beginning October 15, 1950. Successful bid for the issue was made by Salomon Bros. & Hutzler and 3 associates. Their bid was 99.432 with interest at 2½ per cent, making the average annual cost of the proceeds approximately 2.21 per cent. The certificates were reoffered to the public at prices yielding from 1.3 to 2.45 per cent, according to maturity.

Wheeling & Lake Erie—New York, Chi-cago & St. Louis.—The former to issue and sell \$4,000,000 of series C general and refunding mortgage 2¾ per cent bonds, and the latter to assume liability for sinking fund payments for the bonds. Proceeds will be used by the Wheeling to pay off the balance of a note held by the Chase National Bank of New York in the amount of \$3,761,700, due Novem-ber 1. Any additional sums from sale of the bonds will be held in the Wheeling treasury and used to reimburse the N.Y.C. & St.L. from time to time for ex-penditures made on behalf of the Wheel-ing. (See *Railway Age* of April 1, page 76.) The commission's report approved a selling price for the bonds of 97.914 and accrued interest — the bid of Harri-man Ripley & Co. and 2 associates. On this basis the average annual cost of the proceeds to the Wheeling will be ap-proximately 2.87 per cent. The bonds are dated August 15, 1949, and will mature August 15, 1974. They were reoffered to the public at 98¾.

Application has been filed with the I.C.C. by:

Denver & Rio Grande Western.—To as-sume liability for \$2,790,000 of series P equipment trust certificates to finance in part 9 Diesel-electric locomotives from Electro-Motive Division, General Motors Corporation:

Description	Estimated Unit Cost
5 6,000-hp. freight locomotives, each consisting of 2 1,500-hp. lead units and 2 1,500-hp. booster units	\$627,289
4 1,500-hp. switching locomotives	153,251

The D.&R.G.W. estimated total cost of the new locomotives would be \$3,749,449. The certificates would be dated June 1, and would mature in 30 semiannual in-stallments of \$93,000 each, beginning De-cember 1, 1950. They would be sold by competitive bids, with the interest rate to be set by such bids.

Seaboard Air Line.—To issue and sell \$30,000,000 of first mortgage bonds, series B. Proceeds from the sale of these bonds, plus other cash, would be used to re-deem the road's first mortgage 4 per cent bonds, series A, which are outstanding in the amount of \$31,534,500. The trans-action is a move, among other things, for a lower interest rate on the Seaboard's bonded indebtedness, and the application said the series B bonds "will be issued and sold only if they bear an interest rate substantially lower than 4 per cent." In addition to seeking a lower interest rate, the road would also effect certain

changes in its first mortgage which pres-ently "constitute obstacles to future equi-ty financing . . . if and when such be-comes feasible."

The new bonds would be sold by com-petitive bids, and the interest rate would be set by such bids. Coupon bonds of the issue would be dated May 1, while registered bonds would be dated as of the last interest date preceding the date of authentication. These series B bonds would mature May 1, 1980. The series A bonds, dated January 1, 1946, are due January 1, 1996, but are redeemable without premium.

Average Prices Stocks & Bonds

	Apr. 25	Prev. week	Last year
Average price of 20 repre-sentative railway stocks	41.76	42.75	39.08
Average price of 20 repre-sentative railway bonds	92.01	92.76	86.81

Dividends Declared

Atlantic Coast Line.—\$1.00, payable June 12 to holders of record May 15.

Investment House Publications

[The surveys listed herein are, for the most part, prepared by financial houses for the in-formation of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opin-ions which they may contain bearing upon the attractiveness of specific securities.

Business Week, 330 W. 42nd St., New York 18.

Rails Face More Rough Rides. Even discounting the coal strike, the overall rail showing has been disappointing. First quarter earnings are sure to be off. And prospects seem slim that carriers can make up lost ground. (Business Week, April 8, page 86.)

Investor's Reader. Published by Merrill Lynch, Pierce, Fenner & Beane, 70 Pine st., New York 5.

The Men of Chessie. Outlines briefly current conditions on the Chesapeake & Ohio, the effect of the coal strike and what the management is doing to reduce expenses and increase business. (In-vestor's Reader, March 29, page 12.)

Baker, Weeks & Harden, One Wall st., New York 5.

Atlantic Coast Line Bond Exchange Offer. April 21.

Railroad Data. March 28. Includes table showing operating and financial performance as revealed in certain sig-nificant ratios for carriers not reorganized since 1929.

Freeman & Company, 61 Broadway, New York 4.

Equipment Trust Securities. 1949 edi-tion prepared by Philip H. Ackert.

H. Hentz & Co., 60 Beaver st., New York 4.

An Analysis of Northern Pacific Rail-way. March 27.

Fortnightly Investment Letter. April 19. Includes railroad earnings prospects, Chi-cago, Terre Haute & South Eastern in-come 2¼s-4¼s of 1994 and Baltimore &

Ohio ref. 5s 1995, 1996, 2000 and deb. 4½s 2010.

Smith, Barney & Co., 14 Wall st., New York 5.

Atlantic Coast Line Railroad Company. Offer of exchange to holders of first con-solidated 4s due July 1, 1952. Railroad Bulletin No. 45, April 19.

Leverage in Railroad Stocks; the Arith-metic of Railroad Shares. Railroad Bul-letin No. 43, March 31.

1949 Railroad Margins of Safety. Rail-road Bulletin No. 41, March 27.

Railroad Bond Exchange. Railroad Bul-letin No. 42, March 29, and Railroad Bul-letin No. 44, April 18.

Vilas & Hickey, 49 Wall st., New York 5.
Missouri Pacific Railroad Co. April 21.

RAILWAY OFFICERS

EXECUTIVE

H. L. Fulton, Jr., comptroller of the Central of Georgia at Savannah, Ga., has been elected also vice-president.

Roy E. Butler, vice-president and chief engineer of the Newburgh & South Shore at Cleveland, Ohio, has been appointed chief operating officer, with the title of vice-president and superintendent.

Samuel C. Pace, assistant to the presi-dent in charge of public relations and advertising of the St. Louis-San Francisco at St. Louis, Mo., has resigned from that position, effective April 30, to become director of public relations for the F. W. Dodge Company, New York. Mr. Pace was born at Era, Tex., on March 1, 1906, and received his A. B. degree from Col-umbia University in 1927. From 1926 to 1929, he served as reporter and rewrite man for the New York World, subse-quently becoming night city editor and rewrite man for the New York Herald-Tribune. He was later appointed assis-tant advertising manager of the Strath-more Paper Company, West Springfield, Mass., and in 1934 was made mid-west sales manager of the same company. Dur-ing World War II Mr. Pace held the rank of major, serving as public relations of-ficer on several different assignments. He became southern regional public rela-tions director of American Airlines at Dallas in 1946, and the following year joined the Frisco as assistant to the presi-dent in charge of public relations.

FINANCIAL, LEGAL & ACCOUNTING

Monroe E. Clinton, assistant general so-litor of the Missouri-Kansas-Texas at Dallas, Tex., has been promoted to gen-eral attorney at that point.

J. H. Schnaitman, budget engineer of the Chicago, Milwaukee, St. Paul &

"UNION" Car Retarders

Cut Costs on 19 Railroads

Certainly, the ever-expanding list of yards equipped with "Union" Car Retarders provides convincing evidence of their ability to cut car classification costs. Installations are in service in large as well as small yards, and have reduced costs from 10 to 55 cents per car handled. Every installation has paid, or is paying, its way quickly—with the annual return on investment ranging up to as high as 69 per cent.

In addition to these economic benefits, records show that "Union" Car Retarders actually cut classifying time as much as one-third—and for each hour saved in the yard, a freight car can advance on the road 20 miles or more.

If you are considering modernizing your yards, let our representatives show you how "Union" Retarders can speed car classification, handle more cars, save time and money for your railroad.

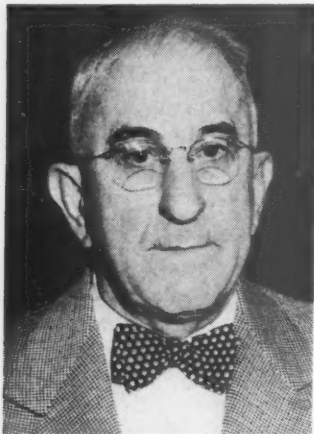


Pacific, has been appointed auditor of capital expenditures, with headquarters at Chicago, succeeding **R. D. Claborn**, transferred to the engineering department at that point as assistant engineer.

Clark A. Eckart, assistant western counsel of the Great Northern at Seattle, Wash., has been appointed senior assistant western counsel at that point, succeeding the late **A. J. Clynch**, whose death was reported in the *Railway Age* of March 25. **R. P. Tjossem**, also assistant western counsel at Seattle, has assumed Mr. Eckart's duties. **Woodrow L. Taylor**, formerly deputy prosecuting attorney for King county, Wash., has joined the G. N.'s legal staff at Seattle as assistant western counsel.

George B. Herbert, secretary and auditor of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., has been elected secretary and treasurer at that point, effective May 1. As treasurer he succeeds **John C. Gainey**, who will retire on April 30. Elected to succeed Mr. Herbert as auditor is **Joseph F. Elliot**, assistant auditor and assistant secretary at Houston, who will in turn be succeeded as assistant auditor by **J. L. Stone**, assistant to the auditor. **J. E. Echols** has been elected assistant treasurer.

Mr. Herbert was born at New Orleans, La., on August 7, 1883, and received his higher education at St. Joseph's College, Victoria, Tex., Peacock's Military School, San Antonio, Tex., and St. Stanislaus College, Bay St. Louis, Miss. He began his railroad career with the S. P. Lines in Texas and Louisiana and their prede-



George B. Herbert

cessors in August, 1901, as a messenger boy at Algiers, La., and subsequently served in various capacities at New Orleans, and Houston until 1914, when he became freight claim agent of the Texas lines. Two years later he was appointed assistant auditor of the same lines, and in 1917 was promoted to auditor of the Louisiana lines at New Orleans. During federal control Mr. Herbert served as corporate auditor of the S. P. Lines in Texas and Louisiana at Houston, and

from 1920 to 1927 held the positions of auditor, secretary and director of the Louisiana lines. He later became assistant auditor of all S. P. Lines in Texas and Louisiana, and in 1938 was advanced to auditor and secretary.

Mr. Gainey was born at Grapeland, Tex., on April 12, 1880, and entered railroad service in August, 1905, as a clerk on the Galveston, Harrisburg & San Antonio (now the S. P. Lines in Texas



Joseph F. Elliot

and Louisiana), with headquarters at Houston. In 1912 he was appointed assistant cashier at Houston. In 1918 he was promoted to acting cashier, and later the same year was advanced to assistant treasurer, becoming treasurer in August, 1944.

Born at New Orleans on May 28, 1888, Mr. Elliot attended Jesuits' College in his native city. He started his railroad career in August, 1906, with Morgan's Louisiana & Texas Railroad & Steam Ship Co. (now Texas & New Orleans) at New Orleans, and subsequently held various positions in the disbursements and miscellaneous accounts divisions and the accounting department. From December, 1913, to March, 1920, he served successively as chief clerk, miscellaneous accounts division, and personal representative of the federal auditor. He later became chief clerk to the auditor and assistant auditor, and the following July was advanced to assistant auditor at Houston. In August, 1938, Mr. Elliot was appointed also assistant secretary.

OPERATING

John A. Hill has been appointed trainmaster and **James R. VanEvery**, car accountant, of the Toronto, Hamilton & Buffalo at Hamilton, Ont. The position of assistant trainmaster has been abolished.

TRAFFIC

Robert D. Darden, assistant general freight agent of the Southern at Asheville, N. C., has been promoted to assistant freight traffic manager, with the same headquarters, effective May 1. **J. H. Hayghe** has been appointed assistant to

freight traffic manager at Washington, D. C. Mr. Darden was born in North Carolina and was graduated from the University of North Carolina, entering railroad service as a student clerk in the traffic department of the Southern at Washington in August, 1926. He subsequently served in various clerical positions in Washington and Columbia, S. C., until his appointment as commercial agent at Charlotte, N. C., on February 1, 1934. In February, 1940, Mr. Darden was appointed division freight agent at Louisville, Ky., and in April, 1941, was promoted to general agent at Pittsburgh, Pa., transferring to Philadelphia, Pa., on January 1, 1945. He was appointed assistant general freight agent at Asheville in November, 1945.

As reported in the *Railway Age* of March 25, **James R. MacAnanny** has been appointed freight traffic manager of the Boston & Maine and the Maine Central at Boston, Mass. Mr. MacAnanny was born at Somerville, Mass., on February 26, 1891, and entered railroad service in 1905 as junior clerk in the local freight office of the B. & M. at Boston. In 1908 he transferred to the general freight office and from 1911 to 1912 assisted in re-vamping the freight-rate structure under supervision of the New Hampshire Public Service Commission at Concord,



James R. MacAnanny

N. H. Mr. MacAnanny became chief of the tariff bureau in 1917; in 1922 was appointed assistant general freight agent, and in 1926 became general freight agent. Mr. MacAnanny was appointed assistant freight traffic manager in 1929, the position he held until his present appointment. In 1935 his jurisdiction was extended to include the M.C.

Norman A. Hersether, assistant general passenger agent of the Chicago & North Western at Chicago, will retire on May 1, after 47 years of service with that road.

C. R. Bair, general agent, freight department, of the Chicago & North Western at San Francisco, Cal., has been transferred in that capacity to Detroit, Mich.

He has been succeeded by **W. L. Foutts**, district traffic representative at Oakland, Cal.

C. E. Maurer, commercial agent of the Norfolk & Western, has been appointed general agent, with headquarters as before at Toledo, Ohio.

Effective May 1, the New England passenger agency of the Pennsylvania at Boston, Mass., will change its address from 82 Boylston street to 10 Little building, 80 Boylston street.

The Illinois Central has announced transfer of its district passenger agency at Cincinnati, Ohio, to Cleveland, effective May 1. **John T. McCue**, district passenger agent at Cincinnati, will be transferred to Cleveland.

MECHANICAL

Effective May 1, the superintendent of equipment of the New York Central at New York will assume jurisdiction over the electric equipment department in the New York territory and the West Springfield (Mass.) Diesel shop. The superintendent of equipment at Cleveland, Ohio, will assume jurisdiction over the Collinwood (Ohio) Diesel shop. **W. G. Ringland**, master mechanic at Albany, N. Y., has been appointed assistant superintendent equipment at New York. **W. H. Chidley**, master mechanic of the Boston & Albany at Boston, Mass., succeeds Mr. Ringland at Albany. The position of master mechanic at Boston has been abolished. **E. L. Hyatt** has been appointed assistant master mechanic at Boston, in which capacity he will continue to have jurisdiction over the West Springfield Diesel shop. **W. C. Wardwell**, assistant superintendent equipment at New York, has been appointed assistant to general superintendent equipment, succeeding **A. D. Bingman**, who will retire on May 1, after 41 years of service.

ENGINEERING & SIGNALING

Raymond G. Wintrich, assistant engineer maintenance of way of the Newburgh & South Shore, at Cleveland, Ohio, has been appointed chief engineer.

R. D. Claborn, auditor of capital expenditures of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, has been transferred to the engineering department at that point as assistant engineer.

A. Edwin Emery, whose promotion to superintendent of communications, Saskatchewan district, of the Canadian Pacific, with headquarters at Moose Jaw, Sask., was reported in the *Railway Age* of April 1, was born on March 24, 1912, at St. John, N. B. He received his higher education at Montreal, Que., where he attended high school and technical college, and where, in June, 1931, he began his railroad career with the C. P.

as an automatic typist. From 1933 to 1940, Mr. Emery served successively as automatic mechanic at Montreal, broadcast and carrier supervisor at Halifax, N. S., relief wire chief at Toronto, Ont., and Hamilton and wire chief at Toronto. Subsequently he was appointed traffic chief at Toronto, being transferred to



A. Edwin Emery

St. John in January, 1944, as inspector on the Atlantic district. After serving as inspector on the Manitoba district, at Winnipeg, Man., from September, 1945, to August, 1946, he became superintendent of traffic, Western lines, at that point. Mr. Emery held the latter post prior to his recent promotion to superintendent of communications.

SPECIAL

Coincident with the resignation of **Samuel C. Pace** as assistant to the president in charge of public relations and advertising of the St. Louis-San Francisco at St. Louis, Mo., effective April 30, **Paul**



Paul M. Morris

M. Morris, manager of publicity, has been appointed director of public relations and **Harry C. James**, manager of advertising. Mr. James handled the Frisco's advertising under the previous departmental

setup. Mr. Morris was born at Malden, Mo., on August 19, 1908, and attended the public schools in his home town and State College, Cape Girardeau, Mo. Prior to joining the Frisco he served as editor of the Malden Merit, editor-manager of the Jackson (N. C.) News, managing editor of the Daily News-Journal, Murfreesboro, Tenn., and manager of bureaus for the Commercial Appeal, Memphis, Tenn. He became manager of publicity for the Frisco three years ago.

The New York office of the Canadian Pacific will move from 342 Madison avenue to 581 Fifth avenue, effective May 1.

OBITUARY

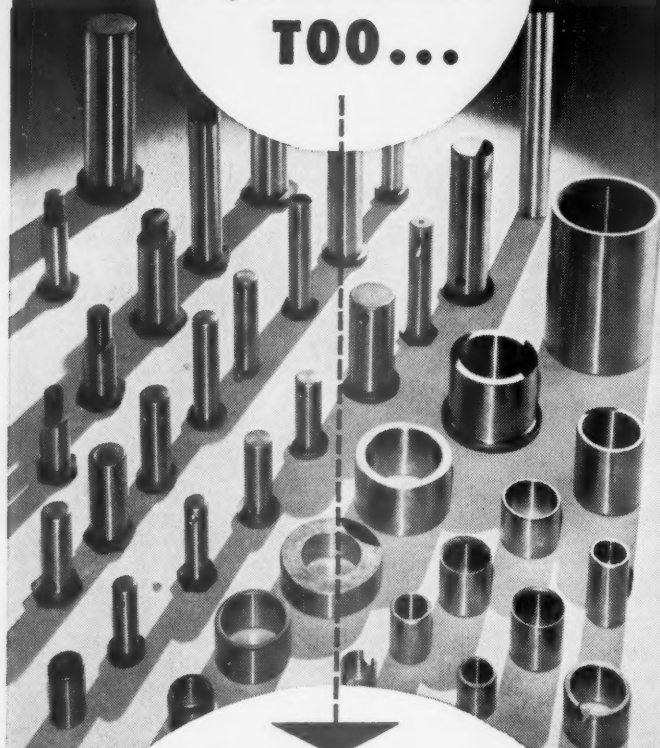
Peter J. Schardt, chairman of the Committee on Railway Mail Transportation of the Association of American Railroads at Washington, D. C., died on April 19 after a three-month illness. Mr. Schardt was born at Saukville, Wis., on October 7, 1878, and entered government service in 1901 as a railway postal clerk, becoming superintendent of the New York division, Railway Mail Service, in 1917. In the latter position Mr. Schardt developed the American Expeditionary Forces Terminal Railway Post Office for distribution and dispatch of mail to the overseas army in World War I. He was later appointed United States Postal Agent in France, serving in that capacity from August, 1918, to November, 1919. In



Peter J. Schardt

March, 1923, he resigned from government service to become assistant to vice-president in charge of mail and express traffic of the Southern system at Washington. He became assistant vice-president on April 1, 1942, retiring from that position in October, 1948, but continuing until his death as chairman of the A.A.R.'s committee on mail transportation. During World War II, Mr. Schardt, on leave of absence from the Southern, served with the U.S. Office of Military Government for Germany from June, 1945, to January, 1946, and was subsequently awarded the War Department's Medal of Freedom.

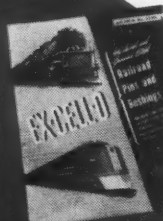
FOR DIESEL EQUIPMENT TOO...



EX-CELL-O

RAILROAD PINS and BUSHINGS WEAR LONGER

Diesel equipment brings new maintenance problems to America's railroads. Ex-Cell-O's methods of manufacturing railroad pins and bushings assure uniformity in size and quality that is essential to long service. The correct heat treatment gives an extremely hard surface for wear resistance and a tough ductile core to withstand shocks and vibration. Precision grinding assures a uniformly good finish and accurate size.



Whether your problems concern new work or maintenance on steam or Diesel equipment, it will be to your advantage to use Ex-Cell-O hardened and ground steel pins and bushings. Write today for a new catalog of standard types and sizes—ask for Bulletin No. 32381.

Railroad Division
EX-CELL-O CORPORATION
DETROIT 32, MICHIGAN

DOUBLE TRUNNION

DOUBLE FULCRUM

SAFE STABLE SIMPLE

DUMPS EITHER SIDE

AIR DUMP CARS

RAIL CARS

MINE CARS

AND LOCOMOTIVES

AXLESS TRAINS

COMPLETE HAULAGE SYSTEMS

DIFFERENTIAL STEEL CAR CO.
FINDLAY, OHIO

HYMAN-MICHAELS COMPANY

Relaying Rails ★★★ Dismantling

Used railroad equipment—cars—locomotives
Freight Car Replacement Parts
Complete stocks of guaranteed used freight car parts carried on hand by us at all times. Located conveniently for shipment to any part of the country. Write—Phone—Wire—when interested in used Rails, Equipment, Cars, Car or Track Dismantling, or Car Parts.

Main Office
122 SOUTH MICHIGAN AVENUE
CHICAGO, ILLINOIS

Branches

New York	San Francisco	Houston
St. Louis	Los Angeles	Havana, Cuba
SERVICE	QUALITY	RELIABILITY

OHIO LOCOMOTIVE - CRANES

25 TO 40 TON CAPACITY

GASOLINE • DIESEL
ELECTRIC • STEAM



THE OHIO LOCOMOTIVE CRANE CO.
BUCYRUS, OHIO

THE PENETRYN SYSTEM, INC.

Restoration and Protection of Concrete, Brick and Stone Masonry
Shotcrete Construction and Repairs
Permeation Process for Masonry
Pressure Grouting
Piers, Abutments, Tunnels, Dams, Buildings
ALBANY CLEVELAND CHICAGO

LOOKING FOR A JOB?

Use the "POSITION WANTED" column of the Get Together Section to your advantage.

Write To:

GET TOGETHER DEPT., RAILWAY AGE
30 Church St. • New York 1, N. Y.